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**CONTINUING SURVEY OF FOOD INTAKES BY INDIVIDUALS/
DIET AND HEALTH KNOWLEDGE SURVEY 1994-96**

1994 SURVEY OPERATIONS REPORT

**Westat, Inc.
1650 Research Boulevard
Rockville, MD 20850**

**Agricultural Research Service
United States Department of Agriculture**

CONTINUING SURVEY OF FOOD INTAKES BY INDIVIDUALS/ DIET AND HEALTH KNOWLEDGE SURVEY 1994-96

1994 SURVEY OPERATIONS REPORT

Contract No. 53-3K06-5-0008

Deliverable I.20b

July 1995

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EXECUTIVE SUMMARY

The Continuing Survey of Food Intakes by Individuals and the Diet and Health Knowledge Survey (CSFII/DHKS) 1994-96 are being conducted by Westat, Inc., under contract to the Agricultural Research Service, U.S. Department of Agriculture (ARS, USDA).¹ Westat, Inc., was awarded the contract at the end of September 1992. A 1-year period beginning at contract award was devoted to the design, conduct, and evaluation of a Pilot Study as a dress rehearsal for the 3-year Main Survey. The Pilot Study allowed for the testing and evaluation of all survey procedures and materials, including sampling procedures, the training of the field staff, the ability to achieve high response rates, the data collection instruments, and the data processing activities. From October 1992 through September 1993, staff from Westat and ARS worked collaboratively on the Pilot Study in preparation for the Main Survey. Three years of continuous Main Survey data collection began in January 1994.

During the 3 years of data collection, interviewers conduct two 24-hour food Intake interviews (spaced 3 to 10 days apart) with approximately 15,000 sample persons (SPs). In households with eligible SPs, interviewers also administer a Household Questionnaire, which collects socioeconomic data about the household, and a Diet and Health Knowledge Survey (DHKS) Questionnaire to capture the selected SP's knowledge, attitudes, and behaviors on diet and health issues. This report documents the procedures and accomplishments of the CSFII/DHKS 1994, the first of the 3 survey years.²

A multistage area probability sample design was used to select persons for the Intake and DHKS interviews. The design included the selection of (1) 62 primary sampling units (PSUs), which are metropolitan statistical areas or groups of counties; (2) area segments within the sampled PSUs; (3) households within the selected segments; and (4) SPs within households.

For the CSFII/DHKS 1994, Westat recruited and trained a field organization of 5 regional supervisors, 5 senior interviewers, and 90 interviewers (10 of whom were bilingual). The field staff attended 7 days of in-person training, which was monitored by ARS, on the use of all questionnaires, materials, and procedures. The supervisors and senior interviewers received an additional day of training that detailed their management responsibilities. To enable close supervision of data collection, Westat developed an automated Field Management System (FMS) that operated on laptop computers provided to the supervisors and interviewers. The FMS captured and reported interviewing production and cost data on a weekly basis. Quality control of interviewing was conducted throughout the year and included taped interviews, in-field observations of the interviewers at work, and validation interviews of a portion of each interviewer's work to confirm that the interviews had been conducted.

The interviewing for the CSFII/DHKS 1994 involved screening 8,333 occupied households for basic demographic information about household members, for a Screener response rate

¹ Some of the work described in this report was performed under the direction of the Human Nutrition Information Service, USDA. Legislation passed on February 20, 1994, transferred the functions and staff of this agency to the existing Agricultural Research Service of that department.

² The contract for the CSFII/DHKS 1994-96 contains very specific requirements for sample precision and sample yields, data collection schedule and contact procedures, response rate targets, quality control procedures, data processing and delivery schedule and quality specifications, reporting schedule, and 20 contract deliverables. The efforts described in this report are in response to these requirements.

of 98.4 percent. Of the screened households, 3,264 households had a total of 6,864 SPs eligible for the Intake interview. Interviewers were able to complete Day 1 and Day 2 Intake interviews with 5,311 SPs, for an interview response rate of 77.4 percent. Additionally, 2,813 Household Questionnaires and 1,879 DHKS Questionnaires were completed, for response rates of 86.2 percent and 91.8 percent, respectively. The target response rates specified in the contract were exceeded for each of the survey's instruments.

In preparation for coding the Intake Questionnaires, 14 food coders were trained and certified. The coding of food items on the Intake Questionnaires was accomplished using Survey Net, a computer-assisted food coding system designed for the CSFII and provided to Westat by ARS. Four coders were trained to code and edit the non-Intake documents. The non-Intake documents were manually coded, keyed, and machine edited. The processed questionnaire data were delivered electronically to ARS once a week. Interviewers and coders received feedback on the results of the quality review performed at Westat and ARS.

Westat's Forms Tracking System (FTS) was used to track survey documents from receipt at the home office through delivery to ARS. A "snapshot" of FTS data was transmitted electronically to ARS every day. The FTS also generated reports on the status of data processing and the quality of Survey Net coding.

Two sets of sampling weights were calculated for the CSFII/DHKS 1994, one for the Day 1 Intake interviews and the other for the DHKS interviews. Jackknife replicate weights were also calculated to facilitate variance estimation.

1. INTRODUCTION

At the end of September 1992, Westat, Inc., was awarded a contract to conduct the Continuing Survey of Food Intakes by Individuals and the Diet and Health Knowledge Survey (CSFII/DHKS) 1994-96. The 1994-96 survey will be the third in a series of U.S. Department of Agriculture surveys responsive to the National Nutrition Monitoring and Related Research Program requirements for the continuous collection, processing, and analysis of dietary status data of the U.S. population. The 1994-96 survey is the first to be conducted by Westat, Inc. The 1994-96 survey is being administered by the Agricultural Research Service (ARS), USDA.¹

The CSFII/DHKS 1994-96 contract was set up with an initial 1-year period, beginning at the time of contract award, for the design, conduct, and evaluation of a Pilot Study as a dress rehearsal for the Main Survey. Specifically, the Pilot Study was an opportunity to test all of the survey operations, procedures, and materials associated with the study's design. From October 1992 through February 1993, staff from Westat and ARS worked collaboratively in preparing for the Pilot Study. During this period, the study questionnaires were finalized and a Food Instruction Booklet (FIB) containing detailed probes for the interviewers to use during the Intake interview was extensively revised. Instructional manuals and training programs were developed for field supervisors, interviewers, and coders. Considerable effort was also spent on developing a set of materials that interviewers could use with respondents to gain their participation in the Pilot Study.

The Pilot Study was a very valuable experience for Westat and ARS. Survey participation and response rates were positive, and interviewers and coders were trained to collect and process high-quality data. The automated management systems developed to monitor the data collection and data processing activities, the Field Management System and the Forms Tracking System, provided timely information that was very useful for performing the work. The Survey Net system developed to code the food data was highly regarded by the data processing staff who used it. A report submitted to ARS at the conclusion of the Pilot Study outlined results and included recommendations for the Main Survey.

¹ Some of the work described in this report was performed under the direction of the Human Nutrition Information Service, USDA. Legislation passed on February 20, 1994, transferred the functions and staff of this agency to the existing Agricultural Research Service of that department.

The Main Survey was intended to span 3 years of data collection beginning in January 1994, with each year a separate contractual option. As a result of the experience from the Pilot Study, staff from Westat and ARS worked collaboratively to revise the survey instruments and other materials for the Main Survey. Questionnaires were refined and the FIB was expanded and improved. The instructional manuals and training programs for field supervisors, interviewers, and coders were also revised to reflect lessons learned from the Pilot Study. This report covers the first of the 3 years of data collection for the Main Survey, referred to as the CSFII/DHKS 1994.²

The design of the CSFII/DHKS 1994-96 requires that a sample of persons (referred to as SPs) participate in two 24-hour food Intake interviews spaced 3 to 10 days apart. To identify the SPs, interviewers carry out a screening procedure with a sample of dwelling units (DUs) to determine a specified number of SPs in accordance with the sample design requirements in the contract. Two additional questionnaires are completed at households with eligible SPs: A Household Questionnaire collecting socioeconomic data administered in person to a knowledgeable household respondent and a DHKS Questionnaire completed primarily by telephone with a selected SP 2 to 3 weeks after the second Intake interview.

The CSFII/DHKS is a multistage area probability sample design consisting of 62 primary sampling units (PSUs). These PSUs are metropolitan statistical areas or groups of counties selected with probabilities proportional to the 1990 population. Data collection occurs in all 62 PSUs during each year of the survey.

In each PSU, 36 second-stage sampling units (i.e., area segments consisting of Census blocks or block groups) were selected before the start of Main Survey data collection in January 1994. Within each PSU, one-third of the sampled segments were randomly assigned to each of the 3 years of the survey, and within each year, one-quarter of the segments were randomly assigned to each quarter of the year. Lists of addresses of every DU within each area segment were compiled. From the lists of DUs, a self-weighting sample of approximately 9,500 DUs was selected for the CSFII/DHKS 1994. To enable interviewers to systematically select SPs within sampled DUs, 1 of 24 sampling messages was assigned to each household. A description of the sample design can be found in Chapter 2 of this report.

² The contract for the CSFII/DHKS 1994-96 contains very specific requirements for sample precision and sample yields, data collection schedule and contact procedures, response rate targets, quality control procedures, data processing and delivery schedule and quality specifications, reporting schedule and 20 contract deliverables. The efforts described in this report are in response to these requirements.

To conduct the CSFII/DHKS 1994, a field organization of 5 regional supervisors, 5 senior interviewers, and 90 interviewers was recruited and trained. The regional supervisors and senior interviewers attended an 8-day training session in mid-December 1993. The first 6 days of the session were a dress rehearsal for interviewer training, while the last 2 days were devoted to supervisory responsibilities. Eighty-two interviewers were trained in a 7-day session held in early January 1994. An additional eight interviewers were hired and trained during 1994. At training, interviewers received instruction in the use of all questionnaires and procedures, with extensive hands-on practice with the instruments, the FIB, and the food measuring guides. As part of training, each trainee interviewed a respondent who was brought into the session. In addition, after leaving training and before beginning interviews, each interviewer had to complete a practice interview that was reviewed by his or her supervisor and a mock interview that was conducted by telephone with the supervisor.

Based on the workload in the PSU, 26 of the PSUs were staffed with two interviewers and 36 PSUs were staffed with one interviewer. Each regional supervisor was responsible for 12 PSUs and approximately 20 percent of the interviewing workforce. The supervisors were in direct communication with the interviewers and reported to the field director in Westat's home office. Supervisors assigned work to their interviewers and monitored production, costs, and the quality of each interviewer's work. Each supervisor was assisted by a senior interviewer, who was available to travel to convert nonresponse cases and observe the interviewers at work.

As will be described in Chapter 3 of this report, the interviewing for the CSFII/DHKS 1994 involved screening 8,333 of the 8,467 occupied households, representing a 98.4 percent Screener response rate. Of the screened households, 3,264 households had a total of 6,864 SPs eligible for the Day 1 Intake interview and 6,863 eligible for the Day 2 Intake. Interviewers were able to complete Day 1 and Day 2 Intake interviews with 5,311 SPs, for an interview response rate of 77.4 percent. Additionally, 2,813 Household Questionnaires and 1,879 DHKS Questionnaires were completed, for response rates of 86.2 percent and 91.8 percent, respectively.³

³ The numbers eligible do not include households or SPs who left the population of interest before having a chance to participate: two households, four SPs before completing the Day 1 Intake interview, five SPs before completing the Day 2 Intake interview, and two SPs selected for the DHKS. These ineligible households and SPs are not included in the denominator of the response rate calculations reported on page 3-32. For a discussion of the population of interest, see pages 6-1 and 6-2 of this report.

Quality control of the interviewing process was conducted throughout the year. Regional supervisors reviewed practice interviews, listened to taped interviews, conducted in-field observations of the interviewers at work, and performed validation procedures to confirm that interviews had been conducted. In addition, an extensive quality review was completed when the questionnaires were receipted in the home office and interviewers received feedback on the results of this review.

To enable close supervision of the data collection, Westat developed an automated Field Management System (FMS). The FMS captured and reported data on field production and costs. Field interviewers and supervisors operated the FMS software on laptop computers. Once a week, the interviewers transmitted field production and cost data to the home office that in turn was downloaded to the supervisors. Reports on response rates, production, and costs were generated weekly.

The data processing of questionnaires, described in Chapter 4, began shortly after the start of data collection. Materials and systems developed for the Pilot Study were revised to reflect changes to the questionnaires and Pilot Study experience. These materials and systems included programs for data entry and cleaning, instructional manuals for reviewing and coding Intake and non-Intake questionnaires (i.e., the Screener, the Household Questionnaire, and the DHKS Questionnaire), file layouts, and an automated Forms Tracking System to monitor the stages of data processing.

Fourteen food coders were trained to code the Intake questionnaires. Training for the food coders began when they attended portions of the interviewer training, followed by 8 days of coder training. Coders had to successfully complete test sets of Intake questionnaires developed by ARS before they were certified to begin coding. Food coders were also trained to code the non-Intake questionnaires. In early May 1994, four additional coders were trained to process non-Intake questionnaires.

When questionnaires arrived in the home office, they were first reviewed to be sure that the minimum set of data items was present to consider the questionnaire completed. The coding of food items reported on the Intake Questionnaires was accomplished using Survey Net, a computerized food coding system designed for use in the CSFII/DHKS 1994 and provided to Westat by ARS. ARS worked closely with Westat to modify Survey Net after the Pilot Study. As a quality control measure, 10 percent of Intake Questionnaires were double-coded using Survey Net and adjudication reports were produced. Discrepancies were resolved by Westat's coding supervisor. All coding decisions and questions were recorded in Survey Net for review by ARS.

The non-food questions on the Intake Questionnaire and the non-Intake documents underwent manual coding and data entry in Westat's production data entry shop, using the Tartan system of data entry hardware and software. As a quality control measure, 100 percent of the non-food data were independently double entered. Following key entry, the data were machine edited using programs developed with COED, Westat's software system for cleaning survey data. The COED software generated machine edit programs, which checked that all keyed data were within the acceptable ranges and that all skip patterns had been followed correctly. Uncodeable and out-of-range responses were recorded for review by ARS staff. Special programs were also written to check the relationships between Survey Net coversheet entries and the Tartan/COED data. The processed questionnaire data were delivered electronically to ARS once a week.

Westat developed the Forms Tracking System (FTS) to manage receipt and processing activities performed at the home office. The system tracked a document from the time it arrived at the home office until it was delivered to ARS. Current FTS data were electronically transmitted to ARS every day. The FTS also generated weekly reports, which detailed the number of documents received, the number of documents at each stage of processing, and the status of the coder quality control operations. These reports were electronically transmitted to ARS weekly.

Throughout the survey year, ARS was actively involved with Westat in the management of the survey. Westat submitted monthly progress reports and participated in quarterly progress meetings, as called for in the contract, to report on the status of the project. Meetings between Westat and ARS were held as needed to discuss issues, such as data processing, revisions to the FIB, and weighting of the survey data. The Westat project director and the ARS Project Officer held weekly telephone calls to discuss progress of the survey. In addition, Westat's director of data processing was in regular telephone contact with key ARS staff responsible for Survey Net coding and the quality of the Intake and non-Intake data.

The CSFII/DHKS 1994 was successful in achieving many of its goals. The response rates specified in the contract for the various instruments were all exceeded. The number of completed dietary Intake interviews required for the first of the 3-year sample design plan met or exceeded the goal for most of the 40 sampling domain groups. Adjustments to sampling rates will be made over the 3 years to try and achieve the target sample sizes for all domains. Westat's staff and approach to processing the data improved steadily over the year so that by the second half of the year, questionnaires were being reviewed within 2 days of receipt. The feedback received from ARS on the

quality of the data delivered by Westat was instructive and positive. The staff, systems, and operating procedures developed for the CSFII/DHKS 1994, as well as Westat's collaborative working relationship with ARS, should provide a firm basis for the continuing work into the next year of the survey.

GLOSSARY OF ACRONYMS

ARS, USDA	Agricultural Research Service, United States Department of Agriculture
CPS	Current Population Survey
CSFII	Continuing Survey of Food Intakes by Individuals 1994-96
CV	coefficient of variation
DHKS	Diet and Health Knowledge Survey
DU	dwelling unit
FIB	Food Instruction Booklet
FMS	Field Management System
FTS	Forms Tracking System
MSA	metropolitan statistical area
NALS	National Adult Literacy Survey
NHIS	National Health Interview Survey
NIRF	Non-interview Report Form
PSU	primary sampling unit
SP	sample person
TIGER	Topologically Integrated Geographic Encoding and Referencing (file)
VEU	variance estimation unit
WIC	Special Supplemental Food Program for Women, Infants, and Children

2. SAMPLE DESIGN

The purpose of this chapter is to describe the sample design for the Continuing Survey of Food Intakes by Individuals and the Diet and Health Knowledge Survey (CSFII/DHKS) for 1994. However, the full CSFII/DHKS runs over the calendar years 1994 through 1996, and the overall sample design is constructed to satisfy objectives for the full survey. Thus, although the discussion below focuses mainly on the 1994 sample, the sample design for the full survey must be presented. Attachment 2.A contains selected procedural memos related to sampling for the CSFII/DHKS 1994-96.

2.1 Introduction and Overview

The primary goal of the sample design for the CSFII/DHKS 1994-96 is to obtain nationally representative samples of noninstitutionalized persons residing in the United States for each of 40 analytic domains defined by sex, age (10 age groups), and income level (a "low-income" group and an "all-income" group) that are aimed to meet specified precision levels for estimates of mean Day 1 saturated fat and iron intakes. Excluded are persons living in group quarters or institutions, residing on military installations, and the homeless. The specific precision levels were that (1) the coefficients of variation (CV) for mean saturated fat and iron intakes should be 3 percent or less for each of the 20 all-income sex-age domains and (2) the corresponding CVs for the low-income sample should be 5 percent or less for each sex-age domain (Section IV.1 of the Statement of Work). These precision goals translate to the 3-year target sample sizes summarized in Table 2-1. In addition, the CSFII/DHKS design specifies that one Day 1 Intake respondent (20 years of age or older) be selected for the DHKS from each household with at least one Day 1 Intake respondent aged 20 or over. It should be noted that for the CSFII/DHKS 1994-96, a single sample was designed with precision requirements by income level. In the past, a separate sample of low-income persons was also designed and selected, in addition to the basic general sample (see Section I.B of the Statement of Work).

A complex multistage area probability sample design was used to select persons for the Intake and DHKS interviews. The design was a stratified multistage area probability sample that included the selection of geographical areas called primary sampling units (PSUs), area segments within the sampled PSUs, households within the selected segments, and sample persons (SPs) within the households. The major features of the sample design are summarized below:

Table 2-1. Three-year sample size goals for the CSFII/DHKS 1994-96

Sex	Age group (years)	Income group	
		Low income*	All income (total sample)
Male	1-2	207	719
	3-5	207	719
	6-11	207	719
	12-19	207	719
	20-29	207	793
	30-39	207	850
	40-49	207	850
	50-59	207	850
	60-69	207	850
	70+	207	793
Female	1-2	207	719
	3-5	207	719
	6-11	207	719
	12-19	207	719
	20-29	207	739
	30-39	207	793
	40-49	207	850
	50-59	207	850
	60-69	207	793
	70+	207	719
Total		4,140	15,482

*Households with incomes below 130 percent of Federal poverty guidelines.

- The first-stage sample was a stratified sample of 62 PSUs consisting of metropolitan statistical areas (MSAs) or groups of counties. PSUs were selected within strata of approximately equal size, with probabilities proportional to the 1990 population.
- Thirty-six area segments (consisting of Census blocks or groups of blocks) were selected from each PSU, for a total of 2,232 area segments for the 3-year survey. The 36 segments selected from each PSU were then divided into 12 sets of 3 segments each, and a set of 3 segments per PSU was assigned to each of the 12 quarters of the 3-year survey period.
- Within the sampled segments, lists of dwelling units (DUs) are prepared by Westat interviewers. More than 108,000 DUs were listed for the first year of the study. From the lists of DUs, a self-weighting sample of approximately 9,500 DUs was selected for the CSFII/DHKS 1994.

- Within the occupied DUs identified during screening, persons eligible for the survey were selected by a probability sampling process designed to achieve the specified sample sizes for various sex-age-income domains (see Table 2-1).
- Finally, in households containing SPs 20 years of age or older who completed the Day 1 Intake interview, one was randomly selected for the DHKS.

Additional details about the CSFII/DHKS sample design and selection procedures are given in Sections 2.2 through 2.6. Section 2.2 describes the procedures used to select the sample of PSUs. Section 2.3 describes the selection of area segments within PSUs (including the use of an existing sample of previously listed segments to reduce costs), and Section 2.4 discusses the procedures for selecting DUs within the sampled segments. Finally, Sections 2.5 and 2.6 describe the procedures for selecting household members for the Intake and DHKS interviews.

2.2 Selection of Primary Sampling Units

The sampling frame of PSUs was created from county-level data contained in the 1990 Census Public Law 94-171 (PL 94) and the Bureau of Economic Analysis data files. The PL 94 data file provided county-level population counts by race and Hispanic origin, while the Bureau of Economic Analysis file provided the corresponding income information. In general, PSUs were defined to be MSAs or groups of contiguous counties. Because of their large populations, the New York MSA was divided into three PSUs and the Los Angeles and Chicago MSAs were each divided into two PSUs. Each of the remaining MSAs comprised a single PSU. Counties outside of MSAs were grouped, as necessary, to form PSUs that (1) had a minimum 1990 population of 15,000 persons, (2) were as internally heterogeneous as possible, and (3) were still small enough to permit convenient travel across the PSU by interviewers. From the more than 3,000 counties in the United States, 1,404 PSUs were created.

The 24 largest PSUs in the frame were included in the sample with certainty. The remaining (noncertainty) PSUs were then assigned to 1 of 38 strata of approximately equal size (in terms of 1990 population), and one PSU was selected per stratum with probability proportional to 1990 population. The following stratification variables were used (some explicitly and some implicitly) to select the noncertainty PSUs:

- Region of the country (four Census regions);
- Whether or not the PSU is an MSA (among the noncertainty strata, 26 were MSA strata and 12 were non-MSA strata);
- Population of the MSA;
- Percent of the population in the PSU who are black or Hispanic; and
- Per-capita income.

The definitions of the 38 noncertainty strata are documented in Table 2-2A, and the distribution of the sampled PSUs by Census region and MSA status is summarized in Table 2-2B. Finally, the locations of the 62 sampled PSUs are shown in Exhibit 2-1 to provide an indication of the geographic spread of the PSU sample. Attachment 2.B provides a list of the sampled PSUs along with selected characteristics of the PSUs.

2.3 Selection of Area Segments

The second-stage sampling units were area segments, which were defined to be individual Census blocks or a group of blocks. A sample of 36 area segments was randomly selected from each PSU with probabilities proportional to size. The 36 segments selected from each PSU were then divided into 12 sets of 3 segments each, and a set of 3 segments per PSU was assigned to each of the 12 quarters of the 3-year survey period. As described below, segments were assigned to the quarters of the year in a balanced random manner to ensure a wide spread of the segment sample within each quarter for each PSU. This balanced sampling was carried out in order to improve sampling precision by reducing the design effects resulting from the homogeneity of persons within segments.

The first step in the sampling process was to create a frame of area segments for each of the 62 sample PSUs. This frame was constructed from the Census Bureau's 1990 PL 94 data tape, which contains population, housing counts, and limited geographic information for each block in the United States. To ensure that the segments would be of sufficient size for use in sampling, small blocks were combined with adjacent blocks to form segments that had a minimum expected size of 60 DUs. After the frame had been constructed, the area segments were sorted into minority strata (depending on the proportion of black and Hispanic persons in the segment) and geographically within

Table 2-2A. Definition of noncertainty PSU strata for the CSFII/DHKS

PSU stratum code	Census region	Metropolitan status	1990 PSU population size class	Income or minority status
C101	Northeast	Non-MSA	--	All PSUs
B101	Northeast	MSA	1,000,000+	\$23,053 or more per-capita income
B102	Northeast	MSA	1,000,000+	Less than \$23,053 per-capita income
B103	Northeast	MSA	< 1,000,000	\$19,275 or more per-capita income
B104	Northeast	MSA	< 1,000,000	\$17,280-19,052 per-capita income
B105	Northeast	MSA	< 1,000,000	\$15,993-17,192 per-capita income
B106	Northeast	MSA	< 1,000,000	\$12,280-15,927 per-capita income
C201	Midwest	Non-MSA	--	\$14,123 or more per-capita income
C202	Midwest	Non-MSA	--	\$13,291-14,121 per-capita income
C203	Midwest	Non-MSA	--	\$12,188-13,272 per-capita income
C204	Midwest	Non-MSA	--	\$7,096-12,174 per-capita income
B201	Midwest	MSA	900,000+	\$17,156 or more per-capita income
B202	Midwest	MSA	900,000+	Less than \$17,156 per-capita income
B203	Midwest	MSA	< 900,000	\$16,475 or more per-capita income
B204	Midwest	MSA	< 900,000	\$15,713-16,466 per-capita income
B205	Midwest	MSA	< 900,000	\$14,418-15,647 per-capita income
B206	Midwest	MSA	< 900,000	\$10,185-14,389 per-capita income
C301	South	Non-MSA	--	33 percent or more black persons
C302	South	Non-MSA	--	20-32.8 percent black persons
C303	South	Non-MSA	--	\$12,696 or more per-capita income
C304	South	Non-MSA	--	\$11,190-12,612 per-capita income
C305	South	Non-MSA	--	\$6,115-11,167 per-capita income
B301	South	MSA	--	31.6 percent or more black persons
B302	South	MSA	--	Less than 31.6 percent black persons, and \$14,744 or more per-capita income
B303	South	MSA	--	Less than 31.6 percent black persons, and less than \$14,744 per-capita income
B304	South	MSA	--	14.5 percent or more Hispanic persons
B305	South	MSA	900,000+	\$16,399 or more per-capita income
B306	South	MSA	900,000+	Less than \$16,399 per-capita income
B307	South	MSA	< 900,000	\$15,432 or more per-capita income
B308	South	MSA	< 900,000	\$14,059-15,068 per-capita income
B309	South	MSA	< 900,000	\$11,262-14,017 per-capita income
C401	West	Non-MSA	--	\$12,885 or more per-capita income
C402	West	Non-MSA	--	Less than \$12,885 per-capita income
B401	West	MSA	--	26.3 percent or more Hispanic persons
B402	West	MSA	--	13.2-24.3 percent Hispanic persons
B403	West	MSA	1,300,000+	\$17,057-19,667 per-capita income
B404	West	MSA	500,000-1,299,999	\$13,087-17,540 per-capita income
B405	West	MSA	< 500,000	\$9,993-21,840 per-capita income

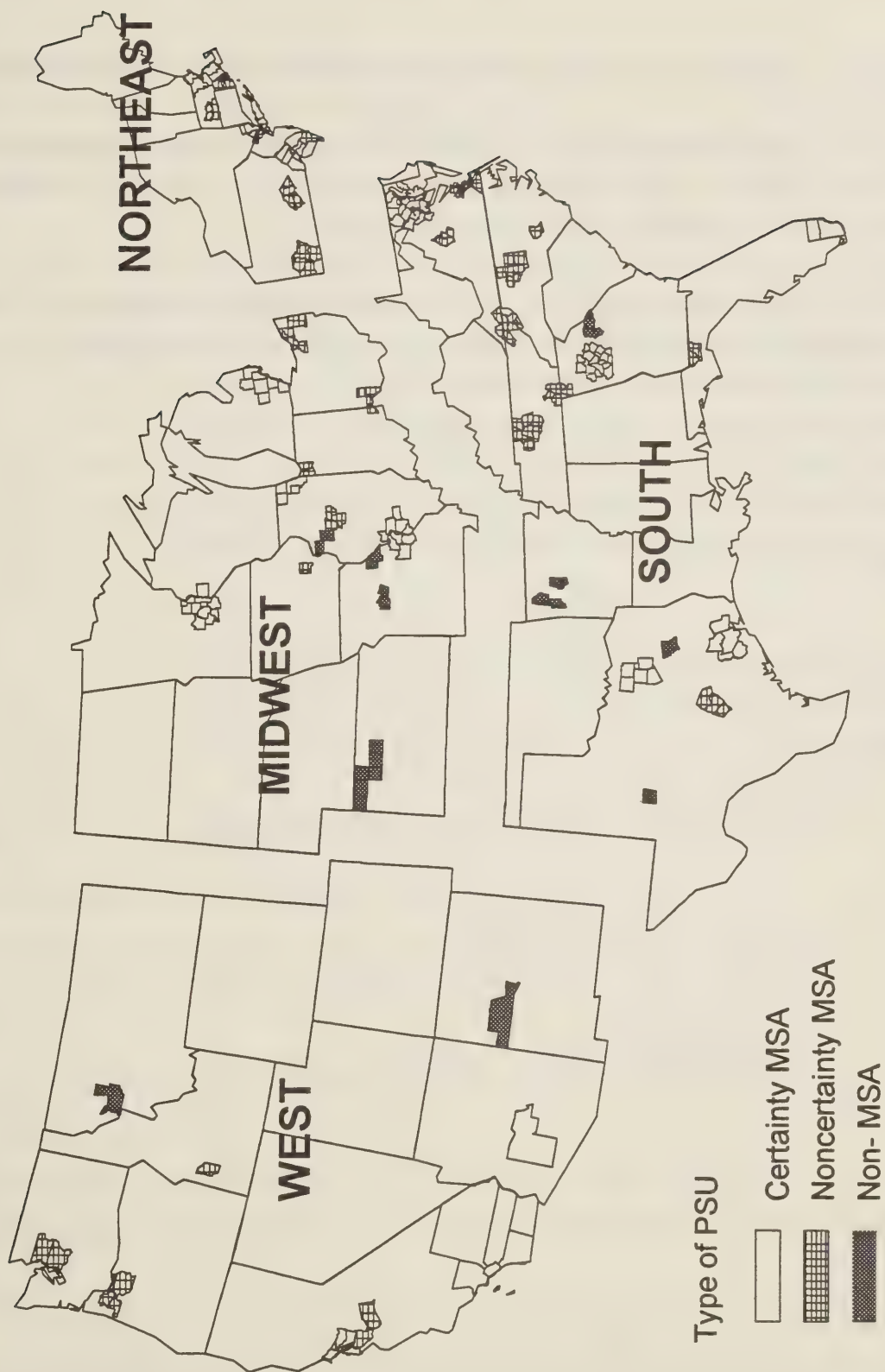
Table 2-2B. Distribution of 62 CSFII/DHKS PSUs by Census region and MSA status

Census region	Type of PSU			Total
	Certainty MSA	Noncertainty MSA	Non-MSA	
Northeast	6	6	1	13
Midwest	5	8	4	17
South	6	7	5	18
West	7	5	2	14
Total	24	26	12	62

minority strata before sample selection. For each of the 3 years of the study, a systematic sample of 12 area segments was selected from the sorted frame with probabilities proportional to the number of DUs in the segment.

To reduce sampling costs, advantage was taken of a national sample of segments that Westat had previously selected and listed in the selected PSUs. The sample developed for the National Adult Literacy Survey (NALS) used basically the same sampling procedures required for the CSFII/DHKS, except that high-density minority segments were selected at about twice the rate of the nonminority segments. For the NALS, the segments were deliberately made much larger than needed (they were designed to contain a minimum of 60 DUs) so that they could serve as the equivalent of a master segment sample that could be used for other studies. Fifty-six percent of the 2,232 segments required for the CSFII/DHKS sample could be drawn from the previously selected NALS segments. The remaining segments were selected in a way that yielded the desired overall probabilities of selection while maximizing the overlap with the NALS sample (see Section 2.3.1). Use of the master segment sample reduced the cost of sampling, mapping, and listing by about 40 percent. It should be noted that although the listings from the master sample were about 2 years old when the first year of the CSFII/DHKS was conducted, the listings were updated through standard quality control procedures (see Section 2.4.4).

Exhibit 2-1. Sample of 62 primary sampling units by Census region for the CSFII 1994-96



2.3.1 Procedures to Maximize Overlap with the National Adult Literacy Survey Sample

The following procedure was used to select the segment sample. It can be shown that the procedure produces a segment sample with the desired probabilities of selection for the CSFII/DHKS, while maximizing the overlap with the previous NALS sample.¹

For a given PSU, let p_i denote the (within-PSU) probability of selecting the i -th segment for NALS, and let P_i denote the corresponding desired probability of selecting the segment for the CSFII/DHKS. Specifically,

$$p_i = \frac{M_i^{\text{NALS}}}{I_i}$$

and

$$P_i = \frac{36M_i^{\text{CSFII}}}{\sum_{i=1}^N M_i^{\text{CSFII}}}$$

where

$$M_i^{\text{NALS}} = \text{the NALS measure of size for segment } i;$$

$$I_i = \text{the sampling interval used to select the NALS segment sample within PSU } i;$$

$$M_i^{\text{CSFII}} = \text{the number of DUs in segment } i^2; \text{ and}$$

$$\sum_{i=1}^N M_i^{\text{CSFII}} = \text{the total CSFII/DHKS measure of size for the PSU.}$$

The NALS measure of size, M_i^{NALS} , was a weighted sum of the within-segment population counts for minority and nonminority groups that was designed to give the high-density

¹ Brick, M., Morganstein, D., and Wolters, C. (1987). Additional uses for Keyfitz selection. *Proceedings of the Section on Survey Research Methods of the American Statistical Association*, pp. 787-791.

² Some blocks are recorded in the Census files as having 0 DUs. All such blocks were retained in the sampling frame and given a minimum sampling measure of size of 60. This was done to avoid excluding blocks containing newly constructed DUs that were not reflected in the Census file counts.

minority segments a relatively higher probability of selection than the nonminority segments. Because there was no requirement to "oversample" high-density minority segments for the CSFII/DHKS, the procedure described below had the effect of adjusting for the higher-than-desired selection probabilities of these segments.

Within a PSU, the "frame" of area segments was divided into the four classes listed in Table 2-3. The appropriate "conditional selection probability" defined in the last column of Table 2-3 was then assigned to each segment in the frame. For example, if a segment was previously selected for the NALS sample and $P_i \geq p_i$ (class A), then this segment was assigned a conditional selection probability of 1 and was retained in the CSFII/DHKS sample with conditional certainty. On the other hand, segments in class D (i.e., non-NALS segments with a smaller CSFII/DHKS probability than NALS probability) were assigned a conditional probability of 0 and thus had no chance of being selected for the CSFII/DHKS (although they did have an appropriate chance of selection in the original NALS sampling process).

Let a be the number of segments in class A (i.e., NALS segments to be retained for the CSFII/DHKS). With a required 36 segments per PSU for the CSFII/DHKS, an additional $(36-a)$ segments were selected from classes B and C with probabilities proportional to the conditional selection probability. Before selection, the file of segments was sorted to reflect the implicit stratification used in the NALS sample selection. Of the 2,232 segments selected for the CSFII/DHKS, 1,254 were NALS segments.

Table 2-3. Definition of segment classes used to select CSFII/DHKS segments and corresponding probabilities of retention

Class	Description	Conditional (on NALS status) selection probability
A	Segments in the NALS sample for which $P_i \geq p_i$	1
B	Segments in the NALS sample for which $P_i < p_i$	P_i/p_i
C	Non-NALS segments for which $P_i \geq p_i$	$(P_i - p_i)/(1 - p_i)$
D	Non-NALS segments for which $P_i < p_i$	0

2.3.2 Assignment of Segments to Years and Quarters

After the segments had been selected, they were numbered sequentially from 1 to 36 within each PSU to reflect the original NALS selection order. Table 2-4 was then used to assign the segments from each PSU to 1 of 12 "segment groups." A random permutation of the integers 1, 2, and 3 (denoted by A, B, and C) and another random permutation of the integers 1, 2, 3, and 4 (denoted by Q, R, S, and T) were generated separately for each of the 62 sample PSUs. The 12 segment groups were then assigned to 1 of the 3 survey years A, B, or C and to quarters Q, R, S, and T, as indicated in Table 2-4. The use of the 12 segment groups defined in Table 2-4 was intended to balance the spread of the sampled segments for each year across the sorted frame of segments.

Table 2-4. Assignment of ordered segments to segment groups, years, and quarters

Segment group	Ordered CSFII/DHKS segment number in PSU			Year	Quarter
1	1	25	24	A	Q
2	3	27	22	B	Q
3	5	29	20	C	Q
4	7	31	18	A	R
5	9	33	16	B	R
6	11	35	14	C	R
7	13	36	12	A	S
8	15	34	10	B	S
9	17	32	8	C	S
10	19	30	6	A	T
11	21	28	4	B	T
12	23	26	2	C	T

2.4 Selection of Dwelling Units

The following sections describe the procedures used to select the sample of DUs for the first year of the survey. These sections summarize the procedures used to create the segment-level lists (frames) of DUs (Section 2.4.1), special procedures for handling a few extremely large segments in the listing process (Section 2.4.2), the selection of DUs from the segment listings (Section 2.4.3), and the field procedures used to verify and update the listing information (Section 2.4.4). Finally, Section 2.4.5 summarizes the results of the DU sampling process.

2.4.1 Listing Procedures

The purpose of listing was to create a list of DUs from which a sample could be selected for interviewing. For the sample to be representative of the population of interest, it was essential that the listing be carried out accurately and systematically, so that every DU in a designated segment was included in the list. The process of listing involved an interviewer walking or driving through every street, road, alley, and/or boundary in the segment and recording on listing forms the address and/or description of every DU within the boundaries of the selected segments (for a complete description of listing procedures, see Westat's Listing Manual).

Map Production

The maps necessary to list the 978 non-NALS segments were generated in August 1993 using the U.S. Census Bureau's map-producing database called TIGER. The TIGER (Topologically Integrated Geographic Encoding and Referencing) file is a geographic database in which all map features are digitized and stored along with attribute information. TIGER files, available on CD-ROM, can be read into various Geographic Information Systems software packages for the PC. Using this database, the software can draw a map of any specified area, at any scale and level of detail. The files include all roads and many other terrain features such as railroads and water (rivers, streams, lakes, etc.). For each selected non-NALS segment, a detailed map and a "context" map were generated (these maps had already been produced for the NALS segments). The maps clearly showed the segment's boundaries, the streets within the boundaries, and enough "context" so that interviewers could locate the segments within the general vicinity. For the first year of the study, maps were generated for 328 non-NALS segments in 59 of the 62 CSFII/DHKS PSUs. In three of the PSUs, no

new (non-NALS) segments were selected for the CSFII/DHKS 1994. The maps for the 650 segments selected for subsequent years of the CSFII/DHKS were stored in Westat's mapping department for use in the listing operations that would precede the 1995 and 1996 surveys.

2.4.2 Use of Chunking to Reduce Listing in Large Segments

Census data indicated that some of the sampled segments were very large. To reduce the listing workload in the large segments, an additional stage of sampling was introduced. In general, these segments (defined as segments with an estimated 500 or more DUs) were divided into two or more smaller "chunks" of approximately equal size, and one chunk was selected for listing with probability proportional to estimated size. Of the 744 segments selected for the first year of the CSFII/DHKS, 54 (including NALS segments) were chunked using these procedures. Although the selected chunks were treated like all other segments in the subsequent stages of selection, their probabilities of selection were properly adjusted to reflect the additional stage of selection.

The following procedure was used to chunk the large segments. First, the lister canvassed the segment to obtain a quick and approximate count of DUs. Using these approximate counts of DUs, the segment was divided into two or more compact chunks of approximately the same size. From these, one chunk was randomly selected for listing with probability proportional to estimated size.

2.4.3 Selection of Dwelling Units from Listed Segments

A sample of approximately 9,500 DUs³ was selected from the 744 segments (or chunks) designated for the first year of data collection. To select the sample, the overall national sampling rate was computed as follows:

$$f = \frac{9,500}{\hat{N}},$$

³ It was previously estimated that about 11,000 DUs would have to be selected for the CSFII/DHKS 1994. However, this estimate was subsequently reduced to 9,500 based on an analysis of current CPS data (see Project Memo #139 in Attachment 2.A).

where \hat{N} is the estimated number of DUs in the United States based on the DU counts obtained during listing. Specifically, \hat{N} was calculated from this formula:

$$\hat{N} = \sum_{h=1}^{62} \left(\frac{1}{P_h} \right) \sum_{j=1}^{12} \left(\frac{N_{hj}^L}{P_{hj}} \right), \quad (1)$$

where P_h is the probability of selecting PSU h , N_{hj}^L is the number of DUs listed in segment j in PSU h , and P_{hj} is the within-PSU probability of selecting segment j in PSU h for the first year of the study.

For the NALS segments, the N_{hj}^L 's reflected the numbers of DUs *originally listed* for the NALS (i.e., not including any new or missed structures added through the "missed structure" or "missed DU" procedures described in Section 2.4.4). Ideally, these numbers should include new construction. However, the consequences of failing to do so are minor and do not result in any selection bias. As documented below, the within-segment sampling rates used to select the DUs were designed to produce a self-weighting national sample of approximately 9,500 DUs. Note that the procedure for selecting DUs within the NALS and non-NALS segments was slightly different because of the desire to avoid selecting those DUs previously selected for NALS in the NALS segments.

Selection of Dwelling Units in Non-NALS Segments

Let N_{hj}^L denote the number of DUs that were listed in (non-NALS) segment j in PSU h . The N_{hj}^L DUs in the segment were then subsampled with equal probabilities at a rate of

$$f_{hj}^{(w)} = \frac{f}{P_h P_{hj}}, \quad (2)$$

where P_h is the probability of selecting the PSU and P_{hj} is the conditional probability of selecting the segment within the PSU. The within-segment sampling rate, $f_{hj}^{(w)}$, given by formula (2) was designed to give each DU in the segment an overall probability of selection equal to f (i.e., $P_h P_{hj} f_{hj}^{(w)} = f$). The actual selection of DUs within a segment was accomplished by first creating a file of unique line numbers corresponding to the DUs listed in the segment, and then selecting the line numbers

systematically using a random start and skip interval equal to $1/f_{hj}^{(w)}$. The systematic sampling algorithm described in Hansen, et al. (1953) was used to make the selections.⁴

Selection of Dwelling Units in NALS Segments

Let N_{hj}^L denote the number of DUs that were originally listed for the NALS in segment j in PSU h . For the NALS segments, the count N_{hj}^L does not include any structures or DUs that were added as a result of the missed structure or missed DU procedures (see Section 2.4.4). Of the N_{hj}^L DUs in the segment that were originally listed for the NALS, the n_{hj}^{NALS} DUs that were sampled for the NALS were identified and excluded from the sampling process. The remaining $N_{hj}^L - n_{hj}^{\text{NALS}}$ DUs were then subsampled at a rate of

$$f_{hj}^{(w)} = \frac{f}{P_h P_{hj} \left(\frac{N_{hj}^L - n_{hj}^{\text{NALS}}}{N_{hj}^L} \right)}, \quad (3)$$

where the term $(N_{hj}^L - n_{hj}^{\text{NALS}}) / N_{hj}^L$ in the denominator of formula (3) is the probability that a DU in the segment was not previously selected for the NALS.

The selection of DUs within a NALS segment was accomplished by first creating a file of unique line numbers corresponding to the DUs listed in the segment, deleting the line numbers corresponding to the DUs previously selected for NALS, and then selecting the line numbers systematically using a random start and skip interval equal to $1/f_{hj}^{(w)}$. The overall sampling rate for DUs in the NALS segments is the same as that in the non-NALS segments (i.e., $P_h P_{hj} (N_{hj}^L - n_{hj}^{\text{NALS}}) / N_{hj}^L f_{hj}^{(w)} = f$).

⁴ Hansen, M., Hurwitz, W., and Madow, W. (1953). *Sample Survey Methods and Theory*, Volume I (p. 343). New York: John Wiley & Sons.

2.4.4 Application of Missed Structure and Missed Dwelling Unit Procedures

Two separate quality control procedures were used to check and update the listing information for all of the segments selected for the CSFII/DHKS 1994. Both of these procedures were conducted during data collection. The first of these, referred to as the missed structure procedure, was applied whenever the first DU in the segment was selected *for the CSFII/DHKS sample*. When a segment was designated for the missed structure procedure, the interviewer recanvassed the entire segment, and all DUs not previously listed were added to the sample (except as noted below). Because the probability of selecting the first DU in a segment was equal to the within-segment sampling rate, all of the added DUs were selected at the same overall rate (i.e., they had the same overall probability of selection) as the rest of the sample.

The above rule for designating the missed structure procedure segments applied to both the NALS and non-NALS segments. Because DUs selected for the NALS were excluded from the CSFII/DHKS sample, NALS segments that were designated for the missed structure procedure in the NALS were not designated for this procedure in the CSFII/DHKS. In effect, the updating work performed for the NALS was ignored for the CSFII/DHKS. However, no bias is introduced because the new or missed DUs still had their appropriate chances of selection for the CSFII/DHKS.

The second procedure, referred to as the missed DU procedure, applied to structures containing many DUs (e.g., apartment buildings) and all DUs listed at a single address. If the first DU in the given structure was selected for the CSFII/DHKS sample, then the entire structure was checked to identify DUs that may have been omitted from the listing sheets. Any missed DUs found by this process were added to the sample.

To keep the interviewing workload to manageable levels within the segment, upper limits were established for the number of missed or new DUs that would be added to the sample. These limits were 10 per segment for the missed structure procedure and 4 per structure for the missed DU procedure. Where the actual numbers of missed DUs exceeded these limits, a subsample of the missed DUs was retained in the sample. In the first year of the CSFII/DHKS, subsampling was required for only 4 of the 93 segments in which the missed structure procedure was applied. Subsampling of the missed DUs was not required for any structures in which the missed DU procedure was applied. During the first year of the study, 77 DUs were added to the sample through the missed DU procedure and 128 DUs were added through the missed structure procedure.

2.4.5 Results of the Dwelling Unit Sampling Process

As described previously, the goal in sampling was to select a self-weighting sample of approximately 9,500 DUs for the first year of the study. Because of a few coding errors in the listing worksheets, the actual number of sampled DUs was 9,423. In addition, 205 DUs were added in the field as a result of the missed structure or missed DU procedure; thus, the total number of DUs selected for the first year of the study was 9,628. Of these, 9,494 (99%) completed either the full or an abbreviated Screener Questionnaire (see Section 3.2 for additional details about the screening process). Almost 1,200 (12%) of the screened DUs were vacant or non-DU structures. Of the 8,333 occupied DUs, 3,266 DUs (39%) had household members who were eligible for the survey (i.e., had eligible SPs). In this report, the term "eligible SP" refers specifically to household members designated for Intake interviews by the sampling process described in Section 2.5. The results of the DU sampling for the first year of the study are summarized in Table 2-5.

Table 2-5. Results of DU sampling for the CSFII/DHKS 1994

Quarter	Number of DUs selected for sample	Number of DUs added in field	Total number of DUs in sample	Number of vacant or non-DUs	Number of occupied DUs with eligible SP	Number of occupied DUs with no eligible SPs	Number of nonresponding DUs
1	2,341	56	2,397	304	825	1,247	21
2	2,365	34	2,399	294	832	1,245	28
3	2,381	52	2,433	270	796	1,326	41
4	2,336	63	2,399	293	813	1,249	44
Total	9,423	205	9,628	1,161	3,266	5,067	134

*Nonresponding DUs were those for which a Screener was not completed.

2.5 Selection of Sample Persons for Intake Interviews

The approach used to select persons for the Intake interviews was to designate subsets of households within which persons meeting specified sex-age-income criteria would be included in the study. For example, for a predesignated subset of households in the DU sample, only children between the ages of 1 and 2 years were to be selected for the Intake interviews. In another subset of households, only children between the ages of 1 and 2 years and low-income males between the ages of 50 and 59 years were to be included in the sample. In yet another subset of households, all household

members 1 year of age or older were to be included in the sample. Sampled households were assigned to the various subsets in a random fashion to ensure the unbiased selection of SPs for the study. In addition, all infants under 1 year of age in households that contained at least one SP 1 year or older were included in the sample.

To facilitate the selection of SPs in the field, each Screener Questionnaire carried a sampling message specifying the characteristics of the persons to be included in the sample. A total of 24 distinct sampling messages were developed for the first year of the survey. The proportion of households receiving a particular message was determined to satisfy the target sampling rates for the various sex-age-income domains. The number and configuration of the sampling messages was a function of these sampling rates. Section 2.5.1 discusses the derivation of the sampling rates that were used to design the sampling messages for the first year of the study. Section 2.5.2 describes how the final set of messages was formed by collapsing domains having similar sampling rates. Section 2.5.3 describes how households were classified into income classes for sampling purposes. Finally, Section 2.5.4 summarizes the results of the SP sampling process for the CSFII/DHKS 1994.

2.5.1 Derivation of Sampling Rates

The form of the sampling messages required to select SPs was determined as follows. First, estimates of the number of persons in each sex-age-income domain were obtained from the March 1992 Current Population Survey (CPS) public use data file. These population estimates are summarized in column (5) of Table 2-6. The low-income designation noted in column (4) refers to persons in households with incomes below 130 percent of Federal poverty guidelines. The CPS estimates given in this table include adjustments to compensate for the known undercounting of certain groups of individuals. Therefore, they were expected to be somewhat larger than the corresponding counts to be obtained from the CSFII/DHKS listing operations. If the CPS estimates were used to derive the sampling rates for the CSFII/DHKS, the resulting sample sizes would likely have been smaller than desired. Thus, to avoid underestimating the required sampling rates, coverage rates from the 1992 National Health Interview Survey (NHIS) were applied to the March 1992 CPS counts to obtain estimates of the numbers of persons who would be covered by an area probability sample. The NHIS coverage rates used in these calculations are shown in column (6) of Table 2-6, and the resulting population counts ("unadjusted for undercoverage") are given in column (7).

Table 2-6. 1992 CPS population counts adjusted for undercoverage, by sex, age, and income group

(1) Sex-age- income domain	(2) Sex	(3) Age group (years)	(4) Income level based on 130 percent of Federal poverty guidelines	(5) March 1992 CPS weighted population count (1,000s)	(6) 1992 NHIS coverage rate	(7) Estimated population count, unadjusted for undercoverage
1	Male	1-2	Non-low	2,698	0.90	2,428
2	Male	3-5	Non-low	4,145	0.90	3,731
3	Male	6-11	Non-low	8,461	0.93	7,869
4	Male	12-19	Non-low	10,822	0.92	9,956
5	Male	20-29	Non-low	16,192	0.86	13,925
6	Male	30-39	Non-low	18,843	0.86	16,205
7	Male	40-49	Non-low	14,912	0.87	12,973
8	Male	50-59	Non-low	9,789	0.90	8,810
9	Male	60-69	Non-low	8,178	0.93	7,606
10	Male	70+	Non-low	6,600	0.92	6,072
11	Female	1-2	Non-low	2,627	0.94	2,469
12	Female	3-5	Non-low	3,959	0.94	3,721
13	Female	6-11	Non-low	7,848	0.94	7,377
14	Female	12-19	Non-low	10,223	0.94	9,610
15	Female	20-29	Non-low	15,149	0.86	13,028
16	Female	30-39	Non-low	18,123	0.93	16,854
17	Female	40-49	Non-low	15,138	0.94	14,230
18	Female	50-59	Non-low	10,091	0.93	9,385
19	Female	60-69	Non-low	8,740	0.95	8,303
20	Female	70+	Non-low	7,970	0.90	7,173
21	Male	1-2	Low	1,315	0.90	1,184
22	Male	3-5	Low	1,686	0.90	1,517
23	Male	6-11	Low	2,966	0.93	2,758
24	Male	12-19	Low	2,963	0.92	2,726
25	Male	20-29	Low	2,632	0.86	2,264
26	Male	30-39	Low	2,615	0.86	2,249
27	Male	40-49	Low	1,520	0.87	1,322
28	Male	50-59	Low	1,149	0.90	1,034
29	Male	60-69	Low	1,332	0.93	1,239
30	Male	70+	Low	1,616	0.92	1,487
31	Female	1-2	Low	1,189	0.94	1,118
32	Female	3-5	Low	1,651	0.94	1,552
33	Female	6-11	Low	3,046	0.94	2,863
34	Female	12-19	Low	3,107	0.94	2,921
35	Female	20-29	Low	4,007	0.86	3,446
36	Female	30-39	Low	3,732	0.93	3,471
37	Female	40-49	Low	2,004	0.94	1,884
38	Female	50-59	Low	1,658	0.93	1,542
39	Female	60-69	Low	2,369	0.95	2,251
40	Female	70+	Low	4,314	0.90	3,883
Total				247,379		224,434

For the reasons given above, the sampling rates for the CSFII/DHKS 1994 were based on the estimated population counts in column (7) of Table 2-6 rather than the actual CPS counts in column (5). The target sample sizes specified for all 3 years of the CSFII/DHKS are summarized in column (4) of Table 2-7. Note that the sample sizes are specified separately for the all-income sample and the low-income sample. Also note that the population counts in the upper half of column (5) refer to the all-income group rather than just the non-low-income group, as in Table 2-6. Column (6) gives the corresponding "initial" sampling rates (expressed in units of 0.001) obtained by dividing the target sample size by the corresponding population count in column (5). Columns (7) and (8) of the table give the expected numbers of non-low- and low-income SPs, respectively, in the *all*-income sample, assuming that the initial rates in the *upper half* of column (6) are used to select the sample. In other words, the sample sizes shown in columns (7) and (8) of Table 2-7 are those that would be expected if there were no supplementation of low-income persons.

Based on the results shown in column (8) of Table 2-7, it appeared that the all-income sampling rates [i.e., the initial rates given in the upper half of column (6)] for five of the sex-age domains [those denoted with an asterisk in column (9)] would be sufficient to provide the required numbers of low-income SPs. For these five sex-age groups, it would not be necessary to supplement the sample of low-income SPs. However, for the remaining 15 sex-age groups, varying amounts of supplementation would be necessary to achieve the required low-income sample sizes.

The rates at which low-income SPs would have to be sampled to meet the specified targets are given in the lower half of column (6) of Table 2-7. We refer to these rates as r_g^{low} , where g denotes the sex-age group. For the 15 sex-age groups requiring supplementary low-income samples, the required sampling rate for the low-income group, r_g^{low} , is greater than or equal to r_g^{all} , where r_g^{all} is the corresponding sampling rate for the all-income sample given in the upper half of column (6) of Table 2-7. For example, for males 6 to 11 years of age, $r_g^{\text{low}} = 0.0750$, which is greater than $r_g^{\text{all}} = 0.0677$.

Because the overall low-income rate, r_g^{low} , is designed to yield 207 SPs for each sex-age group, we can define the "required" number of non-low-income SPs in a given sex-age group as $n_g^{\text{nonlow}} = n_g^{\text{all}} - 207$, where n_g^{all} is the all-income sample size target given in the upper half of column (4) of Table 2-7. The implied sampling rate for non-low-income persons is then

Table 2-7. Sample size targets specified for the CSFII/DHKS, initial sampling rates, and expected sample sizes based on initial rates

Sex-age-income group			(4)	(5)	(6)	(7)	(8)	(9)
(1)	(2)	(3)	CSFII/DHKS sample target (all 3 years)	Population counts based on CPS totals and NHIS coverage	Initial sampling rate (X 1,000) corresp. to target	Expected number of non-low- income SPs in all-income sample	Expected number of low-income SPs in all- income sample	Sample for sex-age group meets target for low income
Sex	Age group (years)	Income group						
Male	1-2	All	719	3,612	0.1991	483	236	*
Male	3-5	All	719	5,248	0.1370	511	208	*
Male	6-11	All	719	10,627	0.0677	532	187	
Male	12-19	All	719	12,682	0.0567	564	155	
Male	20-29	All	793	16,189	0.0490	682	111	
Male	30-39	All	850	18,454	0.0461	746	104	
Male	40-49	All	850	14,296	0.0595	771	79	
Male	50-59	All	850	9,844	0.0863	761	89	
Male	60-69	All	850	8,844	0.0961	731	119	
Male	70+	All	793	7,559	0.1049	637	156	
Female	1-2	All	719	3,587	0.2004	495	224	*
Female	3-5	All	719	5,273	0.1363	507	212	*
Female	6-11	All	719	10,240	0.0702	518	201	
Female	12-19	All	719	12,530	0.0574	551	168	
Female	20-29	All	739	16,474	0.0449	584	155	
Female	30-39	All	793	20,325	0.0390	658	135	
Female	40-49	All	850	16,113	0.0528	751	99	
Female	50-59	All	850	10,927	0.0778	730	120	
Female	60-69	All	793	10,554	0.0751	624	169	
Female	70+	All	719	11,056	0.0650	466	253	*
Male	1-2	Low	207	1,184	0.1749	XX	XX	XX
Male	3-5	Low	207	1,517	0.1364	XX	XX	XX
Male	6-11	Low	207	2,758	0.0750	XX	XX	XX
Male	12-19	Low	207	2,726	0.0759	XX	XX	XX
Male	20-29	Low	207	2,264	0.0915	XX	XX	XX
Male	30-39	Low	207	2,249	0.0920	XX	XX	XX
Male	40-49	Low	207	1,322	0.1565	XX	XX	XX
Male	50-59	Low	207	1,034	0.2002	XX	XX	XX
Male	60-69	Low	207	1,239	0.1671	XX	XX	XX
Male	70+	Low	207	1,487	0.1392	XX	XX	XX
Female	1-2	Low	207	1,118	0.1852	XX	XX	XX
Female	3-5	Low	207	1,552	0.1334	XX	XX	XX
Female	6-11	Low	207	2,863	0.0723	XX	XX	XX
Female	12-19	Low	207	2,921	0.0709	XX	XX	XX
Female	20-29	Low	207	3,446	0.0601	XX	XX	XX
Female	30-39	Low	207	3,471	0.0596	XX	XX	XX
Female	40-49	Low	207	1,884	0.1099	XX	XX	XX
Female	50-59	Low	207	1,542	0.1342	XX	XX	XX
Female	60-69	Low	207	2,251	0.0920	XX	XX	XX
Female	70+	Low	207	3,883	0.0533	XX	XX	XX

$$r_g^{\text{nonlow}} = \frac{n_g^{\text{nonlow}}}{N_g^{\text{nonlow}}},$$

where N_g^{nonlow} is the non-low-income population count given in the last column of Table 2-6. Column (6) of Table 2-8 summarizes these "adjusted" rates. The corresponding rates for the low-income sample are given in the lower half of column (6) of Table 2-8. The low-income sampling rates are the same as those given in the lower half of column (6) of Table 2-7, except in the case of the five starred age-sex groups, where they are the sampling rates for the corresponding non-low-income group. The rates in column (6) of Table 2-8 were used to construct the final sampling messages, as described in the next section.

2.5.2 Construction of Sampling Messages and Allocation to Households

Let r_i denote the "adjusted" sampling rate for the i -th sex-age-income group given in columns (6) and (7) of Table 2-8. To establish the sampling messages required for the CSFII/DHKS 1994, the rows of Table 2-8 were ordered by r_i from smallest to largest, and sex-age-income groups with similar values of r_i were collapsed as shown in Table 2-9 [see column (5)]. The largest r_i within a collapsed group was used for all detailed sex-age-income groups comprising the collapsed group. These "final" rates are shown in column (6) of Table 2-9. The 24 collapsed groups identified in column (5) of Table 2-9 correspond to the 24 sampling messages used in the first year of the study.

Table 2-10 lists the 24 sampling messages in terms of the characteristics of the persons to be included in the sample. The proportion of DUs that were assigned to sampling message i is shown in the last column of this table and was calculated from the formula:

$$\text{prop}_i = \frac{(r_i - r_{i+1})}{r_1},$$

where r_i is the corresponding final sampling rate given in column (6) of Table 2-9, r_{i+1} is the final sampling rate given in the preceding row of the table (where $r_{25} = 0$ by definition), and $r_1 = 0.2004$ is the largest sampling rate (corresponding to the last row of the table). The sampled DUs within each PSU were then randomly assigned to the various messages in the proportions given in column (7) of Table 2-9. This was accomplished by computing $N_{DU}\text{prop}_i$ (rounded to the nearest integer) for each message $i = 1, 2, \dots, 24$, where N_{DU} is the number of sampled DUs in the PSU, and then randomly assigning the required number of DUs to message i .

Table 2-8. Adjusted sampling rates by sex-age-income group

Sex-age-income group			(4)	(5)	(6)
(1)	(2)	(3)	Population counts based on CPS totals and NHIS coverage	Actual sample targets for non- low- and low- income groups	Adjusted sampling rate (X 1,000)
Sex	Age group (years)	Income			
Male	1-2	Non-low	2,428	483	0.1991
Male	3-5	Non-low	3,731	511	0.1370
Male	6-11	Non-low	7,869	512	0.0651
Male	12-19	Non-low	9,956	512	0.0514
Male	20-29	Non-low	13,925	586	0.0421
Male	30-39	Non-low	16,205	643	0.0397
Male	40-49	Non-low	12,973	643	0.0496
Male	50-59	Non-low	8,810	643	0.0730
Male	60-69	Non-low	7,606	643	0.0845
Male	70+	Non-low	6,072	586	0.0965
Female	1-2	Non-low	2,469	495	0.2004
Female	3-5	Non-low	3,721	507	0.1363
Female	6-11	Non-low	7,377	512	0.0694
Female	12-19	Non-low	9,610	512	0.0533
Female	20-29	Non-low	13,028	532	0.0408
Female	30-39	Non-low	16,854	586	0.0348
Female	40-49	Non-low	14,230	643	0.0452
Female	50-59	Non-low	9,385	643	0.0685
Female	60-69	Non-low	8,303	586	0.0706
Female	70+	Non-low	7,173	466	0.0650
Male	1-2	Low	1,184	236	0.1991
Male	3-5	Low	1,517	208	0.1370
Male	6-11	Low	2,758	207	0.0750
Male	12-19	Low	2,726	207	0.0759
Male	20-29	Low	2,264	207	0.0915
Male	30-39	Low	2,249	207	0.0920
Male	40-49	Low	1,322	207	0.1565
Male	50-59	Low	1,034	207	0.2002
Male	60-69	Low	1,239	207	0.1671
Male	70+	Low	1,487	207	0.1392
Female	1-2	Low	1,118	224	0.2004
Female	3-5	Low	1,552	212	0.1363
Female	6-11	Low	2,863	207	0.0723
Female	12-19	Low	2,921	207	0.0709
Female	20-29	Low	3,446	207	0.0601
Female	30-39	Low	3,471	207	0.0596
Female	40-49	Low	1,884	207	0.1099
Female	50-59	Low	1,542	207	0.1342
Female	60-69	Low	2,251	207	0.0920
Female	70+	Low	3,883	253	0.0650

Table 2-9. Final sampling rates and proportion of households assigned to each message, by sex-age-income group

Sex-age-income group			(4)	(5)	(6)	(7)
(1)	(2)	(3)	Adjusted sampling rate for sex-age- income group	Sampling message number for CSFII/ DHKS 1994	Final sampling rate for sex-age- income group (0.001s)	Proportion of households in sample assigned to message
Sex	Age group (years)	Income				
Female	30-39	All	0.0348	24	0.0348	0.1735
Male	30-39	All	0.0397	23	0.0397	0.0245
Female	20-29	All	0.0408	22	0.0408	0.0058
Male	20-29	All	0.0421	21	0.0421	0.0062
Female	40-49	All	0.0452	20	0.0452	0.0155
Male	40-49	All	0.0496	19	0.0496	0.0218
Male	12-19	All	0.0514	18	0.0514	0.0093
Female	12-19	All	0.0533	17	0.0533	0.0093
Female	30-39	Low	0.0596	16	0.0601	0.0339
Female	20-29	Low	0.0601	16	0.0601	0.0339
Female	70+	All	0.0650	15	0.0651	0.0249
Female	70+	Low	0.0650	15	0.0651	0.0249
Male	6-11	All	0.0651	15	0.0651	0.0249
Female	50-59	All	0.0685	14	0.0694	0.0216
Female	6-11	All	0.0694	14	0.0694	0.0216
Female	60-69	All	0.0706	13	0.0709	0.0073
Female	12-19	Low	0.0709	13	0.0709	0.0073
Female	6-11	Low	0.0723	12	0.0730	0.0105
Male	50-59	All	0.0730	12	0.0730	0.0105
Male	6-11	Low	0.0750	11	0.0759	0.0147
Male	12-19	Low	0.0759	11	0.0759	0.0147
Male	60-69	All	0.0845	10	0.0845	0.0429
Male	20-29	Low	0.0915	9	0.0920	0.0374
Female	60-69	Low	0.0920	9	0.0920	0.0374
Male	30-39	Low	0.0920	9	0.0920	0.0374
Male	70+	All	0.0965	8	0.0965	0.0223
Female	40-49	Low	0.1099	7	0.1099	0.0667
Female	50-59	Low	0.1342	6	0.1342	0.1215
Female	3-5	All	0.1363	5	0.1370	0.0138
Female	3-5	Low	0.1363	5	0.1370	0.0138
Male	3-5	Low	0.1370	5	0.1370	0.0138
Male	3-5	All	0.1370	5	0.1370	0.0138
Male	70+	Low	0.1392	4	0.1392	0.0111
Male	40-49	Low	0.1565	3	0.1565	0.0863
Male	60-69	Low	0.1671	2	0.1671	0.0527
Male	1-2	All	0.1991	1	0.2004	0.1663
Male	1-2	Low	0.1991	1	0.2004	0.1663
Male	50-59	Low	0.2002	1	0.2004	0.1663
Female	1-2	All	0.2004	1	0.2004	0.1663
Female	1-2	Low	0.2004	1	0.2004	0.1663

Table 2-10. Sampling messages used in the CSFII/DHKS 1994

Message number	Characteristics of persons to be included in sample				Proportion of households assigned message
	Males		Females		
	All income	Low income	All income	Low income	
1	1-2	50-59	1-2		0.1663
2	1-2	50-69	1-2		0.0527
3	1-2	40-69	1-2		0.0863
4	1-2	40+	1-2		0.0111
5	1-5	40+	1-5		0.0138
6	1-5	40+	1-5	50-59	0.1215
7	1-5	40+	1-5	40-59	0.0667
8	1-5, 70+	40-69	1-5	40-59	0.0223
9	1-5, 70+	20-69	1-5	40-69	0.0374
10	1-5, 60+	20-59	1-5	40-69	0.0429
11	1-5, 60+	6-59	1-5	40-69	0.0147
12	1-5, 50+	6-49	1-5	6-11, 40-69	0.0105
13	1-5, 50+	6-49	1-5, 60-69	6-19, 40-59	0.0073
14	1-5, 50+	6-49	1-11, 50-69	12-19, 40-49	0.0216
15	1-11, 50+	12-49	1-11, 50+	12-19, 40-49	0.0249
16	1-11, 50+	12-49	1-11, 50+	12-49	0.0339
17	1-11, 50+	12-49	1-19, 50+	20-49	0.0093
18	1-19, 50+	20-49	1-19, 50+	20-49	0.0093
19	1-19, 40+	20-39	1-19, 50+	20-49	0.0218
20	1-19, 40+	20-39	1-19, 40+	20-39	0.0155
21	1-29, 40+	30-39	1-19, 40+	20-39	0.0062
22	1-29, 40+	30-39	1-29, 40+	30-39	0.0058
23	1+		1-29, 40+	30-39	0.0245
24	1+		1+		0.1735

2.5.3 Classification of Households to Income Classes

Under the procedures adopted for the CSFII/DHKS, the Screener question on income status (Q S14) was asked only when necessary during screening because of the belief that asking about income during the initial contact with the household might increase nonresponse to the survey. Therefore, if the sampling message indicated that income information was unnecessary for sampling, the question was not asked. For example, message 24 indicated that all persons (1 year of age or older) in these households were to be included in the sample regardless of income level. Similarly, if a household was assigned message 1 ("select persons 1 to 2 years of age and low-income males 50 to 59 years of age"), but the household did not include males 50 to 59 years of age, the sampling of SPs could proceed without collecting income data in the Screener. In all such cases, the income information was obtained from the more detailed Household Questionnaire, using an identically worded question (Q H47a).

Occasionally, the interviewers were unable to obtain the income information necessary to select SPs for the Intake interviews. In such cases, a rule based on the composition of the household was used to assign the household to one of the income groups for sampling purposes. The rule used was the following: If the household contained one or more children under 6 years of age, but no males 18 years of age or over, the household was treated as low income for sampling purposes. Otherwise, the household was treated as non-low income. This rule was expected to be reasonably effective in identifying low-income households because more than 60 percent of children under 6 years of age living in households headed by a female with related children under 6 years and no spouse present are living below Federal poverty guidelines.⁵

It should be noted that the above rule was adopted simply to facilitate the sampling of SPs in the field. Some households that were classified as low income by this rule may have turned out to be non-low income, and vice versa. For base weighting purposes, such households were weighted according to their income status as determined by the sampling rule, and not their actual income status based on Q H47a of the Household Questionnaire (see Section 5.1). However, for the purpose of determining sample yields, the response to either Q S14 of the Screener Questionnaire or Q H47a of the Household Questionnaire (and not the sampling rule) will be used to establish income status.

⁵ Current Population Reports, Poverty in the United States: 1990, Series P-60, No. 175.

Table 2-11 summarizes the distribution of the sampled households by income level (as reported in either the Screener or Household Questionnaire) and sampling message. Of the 3,266 households with eligible SPs, 374 were classified as low income (below 130% of Federal poverty guidelines) by Q S14 of the Screener Questionnaire and 451 were classified as low income by Q H47a of the Household Questionnaire, for a total of 825 low-income households. A total of 1,958 households were classified as non-low income by either Q S14 or Q H47a. Of the 483 households in the table that did not provide any income data, 385 did not complete the Household Questionnaire and 98 completed the Household Questionnaire but refused to answer question Q H47a. The latter 98 cases account for approximately 3 percent of the 2,813 households that completed the Household Questionnaire. In what follows, persons in the 825 low-income households are referred to as low-income SPs and persons in the 1,958 non-low-income households are referred to as non-low-income SPs.

2.5.4 Results of SP Sampling Process

Tables 2-12 through 2-14 summarize the results of the SP sampling process for the CSFII/DHKS 1994. The classification of cases in Tables 2-13 and 2-14 into income classes was based on either Q S14 of the Screener Questionnaire or Q H47a of the Household Questionnaire, as described in Section 2.5.3.

Table 2-12 summarizes the number of sample DUs, the number of vacant or non-DUs, the number of households with and without eligible SPs, the number of SPs in households with SPs, and the average numbers of SPs per household with an SP, by sampling message. This table contains important sampling-related information that was used to monitor the sampling process. In particular, it should be noted that with the 24 sampling messages used in the first year of the study, 39 percent of the occupied households had an eligible SP, and within these households, an average of slightly more than two SPs were sampled per household. The results given in columns (6) and (7) of the table are reasonably consistent with independent estimates obtained from tabulations of the CPS public use data file. Finally, the numbers of SPs completing the Intake interviews are shown in columns (8) and (9) of this table.

Table 2-11. Distribution of sampled households by sampling source of income data and income level* and sampling message

Sampling message	(1) Occu- pied house- holds with eligible SPs	A. Income required for selection of SPs						B. Income not required for selection of SPs			
		C. Reported in Screener QS14		D. Assigned in Screener based on rule							
		(2)	(3)	(4)	(5)	(6A)	(6B)	(7)	(8)	(9A)	(9B)
		Low income based on Screener (S14 = 2)	Non-low income based on Screener (S14 = 1)	Low income based on House- hold Quest. (H47a = 2)	Non-low income based on House- hold Quest. (H47a = 1)	Income not reported on Screener or House- hold Quest. (HH disp = H01†)	Income not reported on Screener or House- hold Quest. (HH disp ≠ H01†)	Low income based on House- hold Quest. (H47a = 2)	Non-low income based on House- hold Quest. (H47a = 1)	Income not reported on Screener or House- hold Quest. (HH disp = H01†)	Income not reported on Screener or House- hold Quest. (HH disp ≠ H01†)
1	77	7	3	0	0	0	0	18	39	2	8
2	27	7	1	0	0	0	0	6	12	0	1
3	68	24	4	0	0	0	0	14	20	3	3
4	8	1	1	0	0	0	0	1	5	0	0
5	22	7	2	0	0	1	0	3	8	0	1
6	189	47	26	0	1	2	1	40	55	5	12
7	107	41	10	0	0	0	1	18	33	3	1
8	47	10	6	1	0	0	0	8	16	1	5
9	72	25	24	0	0	1	2	4	12	2	2
10	132	32	66	0	0	1	6	10	13	1	3
11	40	12	22	0	0	0	0	4	2	0	0
12	48	13	23	1	0	0	1	1	5	0	4
13	29	3	17	0	0	0	1	2	4	0	2
14	94	19	42	0	2	0	3	5	18	0	5
15	123	17	50	0	0	1	2	12	27	2	12
16	190	39	73	0	3	3	2	9	42	6	13
17	46	12	18	0	0	0	3	3	9	0	1
18	65	7	35	0	1	1	2	3	12	1	3
19	139	19	50	0	1	3	7	11	34	0	14
20	110	16	26	0	0	1	2	14	33	4	14
21	44	1	7	0	0	0	0	7	24	2	3
22	46	5	10	0	0	0	0	2	19	0	10
23	189	10	42	0	0	0	2	20	87	5	23
24	1,354	0	0	0	0	0	0	234	863	47	210
Total	3,266	374	558	2	8	14	35	449	1,392	84	350

* Low-income households are those with incomes below 130 percent of Federal poverty guidelines. All others are considered non-low income.

† An HH (Household Questionnaire) disposition code of H01 refers to a "completed household questionnaire." All other codes are nonrespondents or ineligible.

Table 2-12. Number of DUs and SPs selected for the CSFII/DHKS 1994 and number of SPs completing the Day 1 Intake interview, by sampling message

Sampling message	(1) Total number of sample DUs	(2) Number of vacant or non-DUs*	(3) Number of households with at least one SP†	(4) Number of households with no SPs**	(5) Number of SPs in households with SPs	(6) Average number of SPs per household with an SP	(7) Proportion of occupied households with eligible SPs	(8) Number of SPs completing Day 1 Intake interview	(9) Number of SPs completing both days of Intake interviews
1	1,609	174	77	1,349	96	1.25	0.0540	85	85
2	506	53	27	424	30	1.11	0.0599	29	29
3	827	83	68	671	78	1.15	0.0920	69	66
4	105	9	8	87	9	1.13	0.0842	9	8
5	134	20	22	92	30	1.36	0.1930	26	26
6	1,173	125	189	846	274	1.45	0.1826	235	227
7	644	72	107	463	155	1.45	0.1877	137	130
8	211	26	47	137	69	1.47	0.2554	61	58
9	359	39	72	247	102	1.42	0.2257	88	83
10	408	51	132	224	180	1.36	0.3708	151	147
11	139	20	40	78	57	1.43	0.3390	51	47
12	103	10	48	43	72	1.50	0.5275	59	57
13	72	13	29	30	40	1.38	0.4915	33	29
14	206	24	94	86	158	1.68	0.5222	125	119
15	241	48	123	66	218	1.77	0.6508	180	169
16	327	37	190	95	368	1.94	0.6667	313	302
17	91	17	46	27	106	2.30	0.6301	96	94
18	89	4	65	20	135	2.08	0.7647	115	110
19	210	25	139	42	299	2.15	0.7680	227	221
20	150	17	110	22	270	2.45	0.8333	212	207
21	59	5	44	7	78	1.77	0.8627	63	60
22	58	3	46	4	112	2.43	0.9200	82	78
23	237	36	189	5	480	2.54	0.9742	383	356
24	1,670	250	1,354	2	3,452	2.55	0.9985	2,760	2,603
Total	9,628	1,161	3,266	5,067	6,868	2.10	0.3919	5,589	5,311

* Screener disposition code of S07.

† An SP is a person having the characteristics specified in the sampling message. Households with at least one SP have Screener disposition codes of S01, S02, and S03.

**Screener disposition codes of S04, S05, and S06.

Table 2-13. Number of SPs eligible for the Intake interviews and number completing one or both days of Intake interviews, by sex-age-income domain*

Sex-age†	Low-income households			All households		
	Number of eligible SPs in low-income households	Number of SPs completing Day 1 Intake	Number of SPs completing Day 1 and Day 2 Intake	Number of eligible SPs in all-income households	Number of SPs completing Day 1 Intake	Number of SPs completing Day 1 and Day 2 Intake
Males						
<1 year	28	25	23	69	61	58
1-2 years	89	86	81	287	255	246
3-5 years	99	89	85	351	295	289
6-11 years	68	65	64	291	255	253
12-19 years	106	97	91	347	284	266
20-29 years	129	108	100	343	268	244
30-39 years	100	86	82	393	312	296
40-49 years	103	82	81	397	303	287
50-59 years	70	61	58	366	266	255
60-69 years	65	58	55	338	245	232
70+ years	68	59	55	321	255	233
Females						
<1 year	32	29	28	79	69	68
1-2 years	91	87	82	277	248	235
3-5 years	106	103	99	336	302	295
6-11 years	77	74	72	302	259	253
12-19 years	85	79	75	328	271	261
20-29 years	115	105	101	342	272	256
30-39 years	91	87	81	346	293	277
40-49 years	92	82	76	369	300	286
50-59 years	68	66	64	369	292	274
60-69 years	61	57	52	314	243	231
70+ years	70	64	57	299	241	216
Total, excluding children less than 1 year old	1,753	1,595	1,511	6,716	5,459	5,185
Total	1,813	1,649		6,864	5,589	

*Table excludes four SPs who became ineligible before completing the Day 1 Intake (disposition code of F30).

†Classification by sex and age includes imputed values. See Section 5.1.5.

Table 2-14. Number of SPs completing the Day 1 Intake interviews and corresponding sample size target by sex-age-income domain

Sex-age*	Low-income households			All households		
	Number of eligible SPs in low-income households	Number of SPs completing Day 1 Intake	Sample target for Day 1 Intake	Number of eligible SPs in all-income households	Number of SPs completing Day 1 Intake	Sample target for Day 1 Intake
Males						
< 1 year	28	25	NA	69	61	NA
1-2 years	89	86	69	287	255	240
3-5 years	99	89	69	351	295	240
6-11 years	68	65	69	291	255	240
12-19 years	106	97	69	347	284	240
20-29 years	129	108	69	343	268	264
30-39 years	100	86	69	393	312	284
40-49 years	103	82	69	397	303	284
50-59 years	70	61	69	366	266	284
60-69 years	65	58	69	338	245	284
70+ years	68	59	69	321	255	264
Females						
< 1 year	32	29	NA	79	69	NA
1-2 years	91	87	69	277	248	240
3-5 years	106	103	69	336	302	240
6-11 years	77	74	69	302	259	240
12-19 years	85	79	69	328	271	240
20-29 years	115	105	69	342	272	248
30-39 years	91	87	69	346	293	264
40-49 years	92	82	69	369	300	284
50-59 years	68	66	69	369	292	284
60-69 years	61	57	69	314	243	264
70+ years	70	64	69	299	241	240
Total, excluding children less than 1 year old	1,753	1,595	1,380	6,716	5,459	5,168
Total	1,813	1,649	1,380	6,864†	5,589	5,168

* Classification by sex and age includes imputed values. See Section 5.1.5.

† Table excludes four SPs who became ineligible before completing the Day 1 Intake (disposition code of F30).

Table 2-13 summarizes the number of SPs eligible for the Intake interviews and the corresponding numbers completing one or both days of Intake interviews, by sex-age-income domain. Table 2-14 compares the number of SPs completing one day of Intake interviews with the corresponding annual sample size target by sex-age-income domain. The "targets" given in Table 2-14 are one-third of the 3-year numerical goals specified for the CSFII/DHKS (see Table 2-1). As Table 2-14 shows, the sample yields for the CSFII/DHKS 1994 generally met or exceeded the designated targets, with some exceptions. Shortfalls occurred in the following analytical domains:

1. All-income males ages 50 to 59 years;
2. All-income males ages 60 to 69 years;
3. All-income males ages 70+ years;
4. All-income females ages 60 to 69 years;
5. Low-income males ages 6 to 11 years;
6. Low-income males ages 50 to 59 years;
7. Low-income males ages 60 to 69 years;
8. Low-income males ages 70+ years;
9. Low-income females ages 50 to 59 years;
10. Low-income females ages 60 to 69 years; and
11. Low-income females ages 70+ years.

For those domains where the actual yield exceeded the 1-year sample size target, the excess was often substantial (e.g., for persons under 19 years of age). For the CSFII/DHKS 1995, revised sampling rates were therefore implemented to (1) adjust for the expected shortfalls in the domains listed above and (2) keep the sample sizes within the desired ranges for the entire 3-year project.

2.6

Selection of SPs for the Diet and Health Knowledge Survey

SPs who were 20 years of age or older *and* who had completed the Day 1 Intake interview without the assistance of a proxy (disposition code of F01) were also eligible for the DHKS. SPs were selected for the DHKS in the field using a specially designed sampling program in each interviewer's laptop computer. If there were two or more eligible respondents in the household, the sampling program randomly selected one for the DHKS. Approximately one-half of the households had more than one eligible SP for the DHKS. Table 2-15 summarizes the numbers of SPs selected for and responding to the DHKS, by income group and the number of eligible SPs in the household.

Table 2-15. Number of SPs selected for and completing the DHKS, by income group and number of eligible SPs in household

Income group	Number of eligible SPs in household (persons completing Day 1 Intake)*	Number of SPs completing Day 1 Intake*	Number of SPs selected for DHKS	Number of SPs completing DHKS
Low income	1	417	417	380
	2	376	188	180
	3	78	26	22
	4 or more	16	3	3
	Total low income	887	634	585
All income	1	1,028	1,028	924
	2	1,804	902	846
	3	291	97	90
	4 or more	95	22	19
	Total all income	3,218	2,049	1,879

*Completing Intake without the assistance of a proxy (disposition code of F01).

Unlike the Intake interviews, there were no specific numerical sample size targets for the DHKS. However, there was the requirement that the distribution of DHKS respondents be "similar" to that of the corresponding Intake respondents by sex, age, and income. Although it was recognized that restricting the DHKS sample to only one respondent per household might distort the distribution of DHKS respondents somewhat, the random sampling procedures used to select DHKS respondents were reasonably effective in meeting the study goals. As Table 2-16 shows, the distribution of SPs selected for the DHKS and the corresponding distribution of DHKS respondents are generally comparable to the distributions of SPs completing the Day 1 Intake interview. Note that in Table 2-16, the number of SPs completing the Day 1 Intake includes 5,517 SPs who completed the Day 1 Intake interview and 72 SPs whose Intake was provided by a proxy for the SP (Intake disposition code F02).

Table 2-16. Number of SPs completing Day 1 Intake and number completing the DHKS, by sex, age, and income

Sex and age group	Income group	SPs completing Day 1 Intake*		SPs selected for DHKS		SPs completing DHKS	
		Number	Percent	Number	Percent	Number	Percent
Male	Low income						
20-39 years		194	21	122	19	113	19
40-59 years		143	16	101	16	91	16
60+ years		117	13	75	12	67	11
Female							
20-39 years		192	21	131	21	122	21
40-59 years	All income	148	16	110	17	104	18
60+ years		121	13	95	15	88	15
Total		915	100	634	100	585	100
Male							
20-39 years		580	18	335	16	305	16
40-59 years		569	17	354	17	326	17
60+ years		500	15	300	15	271	14
Female							
20-39 years		565	17	347	17	318	17
40-59 years		592	18	381	19	356	19
60+ years		484	15	330	16	303	16
Total		3,290	100	2,047†	100	1,879	100

*Intake disposition codes of F01 and F02.

†Excludes two SPs who became ineligible before completing the DHKS (disposition code of D30).

2.7 Issues in Sampling Implementation

In general, the sampling procedures developed for the CSFII/DHKS 1994 worked well. However, it is worth noting two areas that required some adjustments during the course of the study. The first was the reduction in Year 1 of the initial sample of DUs from slightly over 11,000 to 9,500. The original projection of 11,000 DUs was based on rough initial assumptions about the distribution of SPs within households in the United States. These distributions were subsequently updated using more current CPS information. The latter analysis suggested that a smaller sample of 9,500 DUs would be sufficient for the CSFII/DHKS 1994.

The second area requiring adjustment was the modification of the sampling messages for Year 2. Although the initial screening sample of 9,500 DUs did in fact yield more SPs than required for the survey year, there were some shortfalls for some sex-age-income domains and considerable surpluses for others (see Table 2-14). Although it was recognized that sampling variability probably accounted for much of the variation in sample sizes, a decision was made to "fine tune" the sampling rates for the second year. In adjusting the sampling rates for Year 2, both upward and downward adjustments were made. The goal was to achieve as closely as possible two-thirds of the CSFII/DHKS sample size targets by the end of the second survey year. As a result of these adjustments, the number (and configuration) of sampling messages for Year 2 was reduced from 24 to 21, and the number of DUs included in the screening sample was increased to 11,500.

3. DATA COLLECTION

3.1 Introduction

Following the Pilot Study, Westat worked in close collaboration with the Agricultural Research Service, United States Department of Agriculture (ARS, USDA), to evaluate and revise the materials and procedures for the Continuing Survey of Food Intakes by Individuals and the Diet and Health Knowledge Survey (CSFII/DHKS).¹ Revisions were made to the Pilot Study questionnaires, interviewer materials, quality control procedures, and field management systems.

Five regional supervisors and five senior interviewers were trained in December 1993 and assisted in the January 1994 interviewer training. A total of 90 interviewers (10 of whom are bilingual) were trained to conduct the CSFII/DHKS 1994.

The data collection period for the CSFII/DHKS 1994 extended over 13 months beginning on January 14, 1994. During this time period, 8,333 occupied households were screened; 2,813 Household Questionnaires were completed; 5,589 Day 1 and 5,311 Day 2 Intake interviews were administered; and 1,879 DHKS Questionnaires were conducted, primarily over the telephone. Interviewing activities (including the time spent contacting sampled households, administering the questionnaires, traveling to and from respondents' homes, editing completed work, and reporting to the supervisors) required about 60,000 interviewer hours.

The following sections describe the questionnaires, questionnaire aids, training activities, and quality control and management of the data collection for the CSFII/DHKS 1994.

¹ The "public-friendly" name of the survey is "What We Eat in America 1994-1996." This name appears on all survey questionnaires, interviewer materials, and respondent letters.

3.2 Data Collection Materials

3.2.1 Questionnaires

The design of the CSFII/DHKS required that interviewers administer the questionnaires described below to households or eligible sample persons (SPs).

- A **Screening Questionnaire** was administered to identify eligible SPs in the sampled households.
- Two 24-hour food intake interviews (the **Day 1 and Day 2 Intakes**) were completed with each SP; the contract required that the Day 2 Intake be administered between 3 and 10 days after the Day 1 Intake and on a different day of the week.
- The **Household Questionnaire** collected socioeconomic data and was administered in person to a knowledgeable household respondent 18 years or older, not necessarily an SP.
- The **DHKS Questionnaire** was completed with a selected SP 20 years of age or older who had completed a Day 1 Intake without the assistance of a proxy. The DHKS was to be completed 2 to 3 weeks after the second Intake interview.

Table 3-1 shows the average time to administer each questionnaire. The times are consistent with those negotiated with ARS at the start of the contract.

Table 3-1. Average questionnaire administration time

Questionnaire type	Average administration time (minutes)*
Screening	7.5
Household Questionnaire	18.6
Day 1 Intake	32.0
Day 2 Intake	29.0
DHKS	31.1

*Includes interviews conducted in person and over the telephone.

The Day 2 Intake was completed over the telephone with 152 (3%) respondents. The average administration time for these telephone Intake interviews was 22.8 minutes. A total of 294 (5%) DHKS interviews were conducted in person. The average administration time for an in-person DHKS interview was 34.3 minutes.

The data collection instruments are described in greater detail in the following paragraphs. The instruments are included as Attachment 3.A.

Screening Questionnaire

The Screening Questionnaire contained 19 questions. It was designed to collect information about the household that allowed the interviewer to follow the sampling procedures to determine if the household was eligible for the survey and to select the SPs to be interviewed. To accomplish this objective, the Screening contained the elements described below:

- An initial verification of the address of the sampled DU;
- A household enumeration that obtained age, date of birth, sex, race and ethnicity, and relationship to a reference person for each usual resident of the DU;
- A question for determining if household income was above or below a specified level (for the purpose of determining poverty status), which was used when income data were required to sample SPs; and
- A computer-generated sampling message specifying the characteristics of the persons selected to be SPs.

The Screening also included instructions for conducting the missed dwelling unit (DU) procedure (see Section 2.4.4) and a listing sheet for recording the addresses of new DUs.

Household Questionnaire

The Household Questionnaire contained 65 questions, including detailed household income questions as well as questions on food shopping practices; employment status; participation in

Government food programs such as the school lunch program, WIC, and the Food Stamp Program; source of food; and food sufficiency.

Day 1 and Day 2 Intake Questionnaires

The Day 1 and Day 2 Intake Questionnaires contained 41 and 17 questions, respectively. The questionnaires elicited a report of all foods and beverages the SP had consumed between midnight and midnight the day before the interview. The SP was first asked to enumerate all food and drink consumed, without any probing and with as little interruption as possible by the interviewer. Then the interviewer probed for the time of day and the eating occasion for each food item, obtained a complete description that would permit the food to be coded so that nutrient values could be determined, and asked the SP to estimate the quantity consumed. A review of all reported foods was then conducted to allow the SP to remember and report additional foods that might have been forgotten. In concluding the questions on foods eaten, the interviewer asked where each food had been obtained, whether it had been eaten at home, and, if not, whether it was ever at home. The final series of questions in the interview were health-related questions, such as the SP's exercise habits, prior and current cigarette-smoking behavior, food allergies, and height and weight.

Measuring guides were used to assist the SP in recalling food quantities. These guides included stainless steel measuring cups and spoons, a 12-inch ruler, a set of thickness sticks, and a plastic 2-cup liquid measuring cup.

Diet and Health Knowledge Survey Questionnaire

The DHKS Questionnaire collected information about the SP's attitudes, knowledge, and behaviors concerning diet and health issues. The 42 questions addressed such topics as the importance of dietary guidance, awareness of diet-health relationships, food labeling, and behavior related to fat intake and food safety.

3.2.2 Questionnaire Aids

Several documents and materials were used in conjunction with the questionnaires. These are described below.

- **Food Instruction Booklet (FIB).** The FIB was used by the interviewer during the Intake interview and contained a series of standardized probes specific to the various foods that the SP might report. The probes were designed to elicit the detailed description and quantity information needed to code the data with the desired level of information and were therefore very important to the quality of the Intake data collected. The FIB also contained recording conventions, standard abbreviations, an index for locating foods, and instructions for using the measurement aids when estimating food quantities.
- **Measuring Guides.** Measuring guides were used in conducting the Intake interviews to quantify the foods and beverages consumed. Included were laminated cards that illustrate fish and chicken parts and circles that help the SP quantify the size of a pancake, for example. Also included were a set of four stainless steel measuring cups and five measuring spoons; eight 1/8"-thick sticks for estimating the thickness of meat, poultry, and cheese; a ruler for reporting dimensions in inches; and a liquid pint measuring cup.
- **Handcards.** These cards list response options and were shown to respondents when asking sensitive questions such as income or a question with a long list of response categories.
- **Household and DHKS Folders.** The Folders contained DU identification information and the interviewer's records of all attempts to complete the interviews associated with the DU. Additionally, the Household Folder contained space to record the results of telephone calls to collect Intake data not available at the time of interview.
- **Non-interview Report Form.** This form documented the reason for each instance of nonresponse. The form also provided a mechanism for interviewers to record information that might have facilitated the completion of the case during a subsequent contact. For the DHKS, this form was incorporated into the DHKS Folder.
- **DHKS postcard.** A colorful DHKS postcard was developed to serve two purposes: (1) to remind the SP of the interview appointment and (2) to provide the SP with the response categories required to answer many of the questions so the interviewer did not have to repeat them.

3.2.3 Improvements to the Pilot Study Questionnaires and Aids

The Pilot Study questionnaires provided the framework for developing the Main Survey data collection instruments and aids for the CSFII/DHKS 1994. To capture experiences from the Pilot Study, Westat had the interviewers maintain a diary of all problems and issues they encountered, complete a Debriefing Questionnaire, and attend an in-person debriefing. Taped interviews and field observations also provided information for identifying areas of improvement. After the results of the Pilot Study had been summarized, Westat met with ARS staff to revise the questionnaires for the Main Survey.

The significant differences between the Pilot Study and Main Survey questionnaires are described below.

- **Screener Questionnaire.** The rules for selecting SPs to be interviewed when income information was not asked were simplified. This simplification eliminated the need for two versions of the Screener Questionnaire and altered the wording of the income questions. Other formatting improvements were made to the Screener to reduce interviewer error.
- **Household Questionnaire.** The income questions were improved for ease and accuracy of interviewer recording. The head-of-household questions were also redesigned to minimize interviewer and respondent confusion.
- **Day 1 Intake Questionnaire.** The series of food intake review questions was moved so that they occurred right after the collection of the detailed description and quantity of each food reported. In the Pilot Study, the review was conducted at the end of the entire series of food intake questions. Other changes included revising interviewer instructions to clarify the administration of the instrument. The revisions to the Day 1 and Day 2 Intake Questionnaires are summarized in Attachment 3.B.
- **Day 2 Intake Questionnaire.** All revisions to the Day 1 Intake Questionnaire were also made to the Day 2 instrument. In addition, the food list in Q17 was reordered and other foods were added.
- **DHKS Questionnaire.** An introductory paragraph and a recording line for the SP's name were added to the cover. Also, the random start reminder boxes were moved to be more obvious to the interviewer. Minor wording changes were made to a few questions, and a skip pattern was developed for respondents who did not use food label information.

The significant changes to the questionnaire aids made between the Pilot Study and the Main Survey are described below.

- **Food Instruction Booklet (FIB).** ARS and Westat staff worked closely to revise the FIB for the Main Survey, finalizing it in November 1993, with some further refinements in July 1994. (The specific changes made with each revision are included as Attachment 3.C.)
- The major change to the FIB was to replace the prompts in the food categories with *standardized* probes about each food. For example, the biscuit TYPE prompt was changed from "from mix, refrigerated dough, home recipe?" to the probe "Was it from a mix, refrigerated dough, home recipe, ready-to-eat...?" Other areas of modification primarily involved format standardization. For example:
 - Interviewer recording instructions were standardized.
 - Icons were added for Additions, Sandwiches, Recipes, Salt, and Fat, as a visual cue to the interviewers that more specific recording guidelines could be found in the instructions section of the FIB.
 - Heading names (called hangers) and heading order within subcategories were standardized as much as possible.
 - Pictures of poultry parts, and wedge and cylinder shapes were added to subcategories as reminders of how to quantify foods such as chicken, pie, and sausage.
 - Fast-food restaurants included in Survey Net were listed in the FIB fast-food subcategory so that the interviewers were clear on when the fast-food probes should be used in collecting detailed food descriptions and amounts.

The midyear 1994 revisions to the FIB involved expanding the Sandwiches, Salads, Soups category to include four new sandwich subcategories (Bacon, Sausage, BLT Sandwiches; Beef, Pork, Ham, Chicken, Turkey, Vegetarian Sandwiches; Egg, Egg Salad Sandwiches; and Fish, Shellfish Sandwiches). Probes were also standardized across categories and were moved or modified within categories to improve the flow, clarify probes, or collect more information.

- **Handcards.** The handcards were changed, as necessary, to reflect the changes in the questionnaires.
- **Household Folder.** Spaces to enter the DU's telephone number and the interviewer's name were added to the Folder cover. A second Followup Call Record was added to the inside of the Folder, allowing interviewers to record missing meal information for two SPs in a DU.

- **Measuring guides.** Information was added to the laminated card that the SP referenced when reporting some food quantities. Additions included pictures of pieces of poultry and fish and various shapes with dimensions.
- **DHKS Folder.** The DHKS Folder was separated from the Household Folder.

3.2.4 Introductory Materials

The likelihood of respondent cooperation is increased if the legitimacy and importance of the survey are established in the respondent's eyes. Therefore, in advance of the Pilot Study, ARS and Westat made considerable effort to develop a set of promotional materials that would convince respondents of the survey's legitimacy and importance. Appearance, content, and wording were all important considerations. ARS and Westat agreed that a "public-friendly" survey name, "What We Eat in America 1994-1996," would appear on all materials. The Pilot Study materials worked well and, except for redesigning the survey logo, minimal changes were made in preparation for the CSFII/DHKS 1994.

The introductory materials included a Westat toll-free telephone number so that SPs could call if they desired more information. For each call received on the hotline, information was recorded and passed along, via E-mail, to the regional supervisor and the interviewer assigned to the case. A total of 130 calls were received during the CSFII/DHKS 1994. Of these callers, 11 percent requested additional information about the study; 15 percent wanted to verify the legitimacy of the study; 17 percent wanted to set an appointment, reschedule an appointment, or contact a particular interviewer; and 57 percent were calling for other reasons but generally expressed an unwillingness to participate in the survey.

The interviewer assigned to the case and his or her supervisor were contacted via E-mail when a respondent called in to set an appointment. The message included information on respondent availability and a request that the interviewer contact the respondent to arrange for an interview. The message was tagged with a "Receipt Request" and a telephone call was placed to the interviewer if the request was not returned in a timely fashion.

When a respondent called in and expressed an unwillingness to participate, the field director tried to convert the refusal by identifying the underlying reason for the resistance and

providing additional information about the survey and the data uses. If the respondent did not agree to participate, the field director and the supervisor considered the case a final refusal or attempted another refusal conversion strategy.

The materials that the interviewers used to explain the survey to the respondents, establish their legitimacy, and respond to their questions are described below.

- **Introductory letter.** The letter briefly described the survey, its importance, and the authority for collecting the data and pledged strict adherence to protect respondent confidentiality. The letter was printed on USDA letterhead and signed by the ARS Contract Officer's Representative. The letter was mailed early enough to arrive in advance of the interviewer's initial visit. Only minor editorial changes were made to the letter as a result of the Pilot Study.
- **Brochure.** The brochure had as its basic goals the promotion and legitimization of the survey. The brochure and introductory letter were mailed together. This colorful brochure attempted to answer questions respondents frequently ask about surveys. Revisions after the Pilot Study included adding a statement concerning the availability of USDA programs and some changes to the graphics.
- **Nonresponse conversion letters.** A basic conversion letter for respondents who could not be contacted, were too busy to participate, or were not interested in participating provided additional information about the survey and stressed the importance of participation. A letter addressed to elderly respondents and women living alone suggested that they might be more comfortable if a friend or relative was with them at the time of interview. Managers of limited-access buildings and communities were encouraged to provide access to sampled DUs so that the residents of sampled units would have an opportunity to participate. All of the letters were printed on Westat letterhead and signed by the field director. The letter often included the name of the interviewer assigned to the case. Letters were requested by the regional supervisor and sent from the home office.
- **Flyers.** The flyers provided a brief overview of the survey and made a visual statement with colorful graphics. One flyer was targeted to adults and the other to teenagers. The flyers were used at the interviewer's discretion during refusal conversion or with reluctant respondents. The appropriate flyer was also included with each nonresponse conversion letter sent from the home office. The only change to the two 1-page flyers was the substitution of the new logo.
- **Factbook.** A loose-leaf factbook was developed for use by interviewers if they thought it would help in gaining SP cooperation. The factbook was intended to show the uses of the survey by including newspaper and periodical articles describing the findings of previous food consumption surveys and related topics. Endorsement letters were also included in the factbook. ARS prepared a

comprehensive press release that described the study and how the data were used. Releases were mailed to 247 newspapers in early February 1994. Westat employed Burrelle's Clipping Service to locate newspaper articles about the study. Twenty-four articles were located by this service and provided to interviewers for their factbooks. Throughout the survey year, additional newspaper articles and press releases about the CSFII/DHKS were mailed to the interviewers as they appeared in print.

- **Tote bag.** Each interviewer received a large heavy-canvas tote bag with sturdy webbed handle-straps for carrying supplies into the field. The tote bag was imprinted with the survey logo, an additional visual cue legitimizing the survey.
- **Photo identification badge.** Interviewers were instructed to wear the laminated photo identification badges issued by Westat when collecting data for the CSFII/DHKS. Because the identification badge was illustrated and had been described in the advance materials, wearing the badge on an outer garment assured the respondent of the interviewer's credibility.

3.2.5 Spanish Language Questionnaires and Materials

All survey materials administered to or shared with primarily Spanish-speaking respondents were translated into Spanish and printed. These materials included the introductory letter, the survey brochure, the flyers, the questionnaires, the hand cards, and the DHKS postcard. Translated documents standardized materials used in approaching and interviewing primarily Spanish-speaking respondents.

All materials were translated by a native Spanish-speaking Westat employee and back-translated by an independent contractor whose first language was Spanish and who had professional experience as a translator for government agencies. To check the accuracy and utility of the translation, the back-translator received a copy of the materials translated into Spanish and translated them "blinded" into English. The translator checked the original English against the back-translated English for changes in meaning. When questions arose, the translator and the back-translator consulted on the most accurate translation.

3.3 Field Staff Training

3.3.1 Lister Training

In August 1993, regional supervisors hired 53 field staff, 47 of whom had previous listing experience and 6 of whom did not, to list the segments selected for the CSFII/DHKS 1994. (See Section 2.4.1 for a description of listing procedures.) All listers were trained through a home study program that included a review of the listing manual, written exercises, and a 50-minute videotape. The home study package consisted of three sections:

1. A presentation of the definitions and instructions used for listing (this section served as a reference manual during listing);
2. Review and practice exercises; and
3. A final review test covering all material presented.

After completing the exercises and the final test, the interviewers mailed them to their supervisors for review. Upon successful completion of home study, listing assignments were shipped to the lister. Listers were required to submit their first two completed segments to their supervisors for review. New listers were also observed in the field by either a supervisor or an experienced lister.

3.3.2 Project-Specific Training

3.3.2.1 Training Materials

To thoroughly prepare field staff for their responsibilities, Westat developed two reference documents. ARS staff provided materials to be incorporated into these documents, and they reviewed and commented on them. The documents were the following:

- **Supervisor/Senior Interviewer Manual.** This document, used exclusively by field supervisors and senior interviewers, covered supervisory responsibilities, including setting up a regional office, case assignment and reassignment to interviewers, monitoring field progress and response rates, reporting to the home office, quality

control of interviewers' work, and using the production and cost reports to monitor work.

- **Interviewer Manual.** This document contained two distinct sections:

Part 1: Field Procedures. This section contained background information on the survey and study-specific data collection procedures. Included were requirements for contacting respondents and answering their questions, administering the questionnaires, selecting SPs, and scheduling interviews.

Part 2: Question-by-Question Specifications. This section contained detailed examples, explanations, and definitions for each question in the questionnaires.

Westat also developed a Trainer's Guide that included all lecture scripts, role plays, and written exercises involved in training. Trainers were required to use the Trainer's Guide to ensure standardization of the materials presented to interviewers.

Westat also developed an Interviewer's Guide to the Field Management System (FMS). (See Section 3.4.2.2 for a more detailed description of the FMS.) This manual provided information about the computer and its use and detailed instructions for entering and transmitting data to the home office.

3.3.2.2 Supervisor/Senior Interviewer Training

The supervisors and senior interviewers attended an 8-day training session from December 7 through December 15, 1993. The session was held in Bethesda, Maryland. The first 6 days of the session were a dress rehearsal for interviewer training. The last 2 days of the session were devoted to supervisory responsibilities, including assigning work to interviewers, monitoring field progress, conducting validation interviews and observations, and reviewing taped interviews. The 14 staff members who were going to serve as food coders attended a portion of the supervisor training to learn about the Intake instruments, the FIB, and data collection procedures. Attachment 3.D is a copy of the Supervisor Training Agenda.

At the end of each day of training, Westat and ARS staff met to evaluate the training. During the 2 weeks between the supervisor and the interviewer training sessions, minor changes were made to the materials to reflect what had been learned from supervisor training.

3.3.2.3 Interviewer Training

Eighty-two field interviewers were trained in a 7-day session conducted between January 7 and January 13, 1994, in Dallas, Texas. Ten of the 82 interviewers were new to Westat and were trained on Westat's general interviewing procedures in a 5-hour session held the day before the project-specific training. At the conclusion of the 7-day session, the 10 bilingual interviewers received an additional day of training on the Spanish language questionnaires and materials. During the course of the year, eight additional interviewers were trained to replace interviewers who had quit or were released. (The Interviewer Training Agenda is included as Attachment 3.E.)

Westat's basic approach to training is to maximize trainee involvement and participation and to provide ample opportunity for supervisory staff to observe and evaluate trainee performance. To accomplish this goal, the training was conducted in small groups of about 15 interviewers (referred to as "communities") where interviewers could receive closer attention and be given extensive hands-on experience with the questionnaires, the FIB, and the food measuring guides. Samples of numerous food packages were displayed and demonstrations of measuring techniques were given so that trainees could familiarize themselves with food labels, package sizes, and various shapes and sizes of glasses, cups, and bowls. Training scripts and exercises were designed to provide situations that the interviewers were likely to encounter and to build in complexity. The following techniques were used to train the interviewers on all survey questionnaires.

- **Home study.** All trainees were required to study the field procedures section of the Interviewer Manual and the FIB before attending training. Interviewers were required to complete exercises based on this material and bring them to training for supervisory review and feedback.
- **Demonstration interview.** Two members of the training staff demonstrated a Day 1 Intake interview using measuring guides, the FIB, and "real" food products. This technique was used to provide trainees with a general sense of the flow of an Intake interview.
- **Interactive lectures.** The basic concepts of the questionnaires were taught through interactive lectures to communities of about 15 interviewers. The trainees were led through the questionnaires and called on to act the role of the interviewer while the trainer played the respondent. The trainer stopped frequently to explain a question more fully or to make a particular point about a question or its administration.
- **Mock interviews.** In their communities (or minicommunities of seven interviewers), trainees were also exposed to increasingly more complex material.

These sessions gave trainees more hands-on practice and allowed trainers to closely monitor interviewer performance. During these sessions, trainees actually used food labels, packages, and measuring guides and measured quantities using glasses, cups, and bowls.

- **Role plays.** Supervisors arranged trainees in pairs, taking into consideration the strengths and weaknesses of the interviewers. Within each pair, one trainee took the role of the interviewer while the other played the SP, using prepared scripts. They then reversed roles. Training staff observed the pairs, correcting the interviewers if needed.
- **Paid respondents.** During training, each trainee had the opportunity to interview respondents who were brought into the training session. This allowed them to practice in an unscripted situation and provided a more realistic experience of what they would encounter with "real" respondents. The trainees were arranged in groups of four, and each group conducted four Intake interviews. The first two interviews were with an adult and a 6- to- 11-year-old child being assisted by the adult, and the last two were with an adult and the same adult acting as a proxy for a child under 6 years old. Each trainee interviewed a respondent while the others observed and recorded the responses. Training staff observed the interviews and provided feedback to the trainees at the completion of the session.
- **Food displays.** A variety of food items and types of packaging were set out on a table in each training room. These products were used throughout the training to provide the trainees with realistic practice with actual food packages.
- **Exercises.** Written exercises were used to reinforce the learning of particular concepts or to give the trainees an opportunity to practice on their own (e.g., editing the Intake Questionnaire or selecting SPs).
- **Plenary review.** ARS and Westat staff met at the end of each training day to discuss the training presentations and the problems interviewers were having and to resolve any issues that arose during the day's sessions. On the last day of training, all trainees were brought together in a large group session. Westat staff reviewed decisions made by ARS and Westat during training, answered any remaining questions, and provided a final review of particularly complex concepts or procedures. ARS presented information about the uses of the survey data.

After returning home, interviewers were required to complete a practice interview with a neighbor or family member and a scripted mock interview by telephone with their supervisor or senior interviewer. After supervisory review of the practice interview and successful completion of the mock interview, supervisors authorized the interviewers to begin work on their assignments.

3.3.2.4 Periodic Training Quizzes

Periodic quizzes were developed and administered by supervisors over the telephone to the interviewers (see Attachment 3.F). The quizzes were used to assess the interviewer's understanding of complex areas of the questionnaires that were sources of common interviewer error. The supervisor provided retraining on the questions that the interviewer had handled incorrectly in the quiz. The supervisors graded the quizzes and reported the grades to the field director.

The five quizzes administered during the year focused on the Intake review, the DHKS health conditions questions (Q5 and Q6), recording sandwich ingredients in the Intake, the income questions in the Household Questionnaire, and SP selection procedures. At the beginning of Quarter 2, the supervisors also conducted a mock telephone Intake with eight interviewers who were not providing adequate detail in describing foods eaten.

3.4 Conduct of the Fieldwork

3.4.1 Field Organization

The 62 primary sampling units (PSUs) were divided into five geographic regions: Northeast, Mid-Atlantic and South, Midwest, Southwest, and West Coast. Each of the five supervisors was responsible for one region consisting of about 12 PSUs and 16 interviewers. Supervisors assigned work to their interviewers and monitored production, costs, and the quality of work. Each supervisor worked with a senior interviewer, who was available to travel to all PSUs in the region to convert nonresponse cases and observe the interviewers at work. In addition to a traveling assignment, each senior interviewer had a small interviewing assignment in her home PSU.

Based on the workload in a PSU, 36 PSUs were staffed with one interviewer and 26 PSUs were staffed with two interviewers. Ten of the interviewers were bilingual in English and Spanish.

3.4.1.1 Recruiting Field Staff

Westat employs its field staff of supervisors and interviewers directly and does not use field services. The five regional supervisors hired for the CSFII/DHKS 1994 had extensive supervisory experience with Westat. Two of the five supervisors had worked on the CSFII/DHKS Pilot Study.

The primary resource for recruiting interviewers is Westat's own files of approximately 4,000 persons who have worked on one of its field studies in the past 3 years. Extensive computer and manual records are maintained on every person who has held or applied for a position on Westat's field staff. In recruiting for the CSFII/DHKS 1994, this was the first source consulted for interviewers. Supervisors received lists of candidates that contained information about relevant interviewing experience. If unable to find a suitable candidate from the Westat list of interviewers, supervisors also used their own contacts with other survey organizations. In 59 of the 62 PSUs, supervisors were able to hire interviewers from these sources. In three PSUs, it was necessary to place advertisements in the local newspapers and interview candidates.

In accordance with requirements set forth in the Statement of Work, the following criteria were considered in selecting staff for the CSFII/DHKS 1994:

- Interviewing experience;
- An ability to work with the public;
- Basic reading and math skills;
- Experience in buying, planning, and preparing food;
- Basic knowledge of food measurement and preparation; and
- Experience on surveys requiring households to participate in multiple interviews.

The characteristics of the 90 interviewers and 5 senior interviewers trained during the CSFII/DHKS 1994 are shown in Table 3-2. The staff consisted of 81 females and 14 males. Eighty-one percent of the interviewers had worked for Westat on a prior survey and 47 percent had more than 5 years of interviewing experience. Additionally, about 80 percent had some college education or had obtained an advanced degree.

Table 3-2. Interviewer characteristics*

Characteristics	Female (n= 81)	Male (n= 14)	Total (n=95)
Age (years)			
30-39	12	2	14
40-49	21	4	25
50-59	26	3	29
60-64	12	4	16
65-74	10	1	11
Survey experience (years)			
None	6	3	9
< 1	6	0	6
1-5	28	7	35
6-10	20	3	23
11-15	11	0	11
16-20	4	1	5
> 21	6	0	6
Education			
High school graduate	17	1	18
Some college	23	0	23
Associate's degree	9	4	13
Bachelor's degree	23	6	29
Master's degree	9	3	12

*Includes characteristics of five senior interviewers.

3.4.1.2 Interviewer Attrition

Eighty-two interviewers were trained at the first training session in January 1994, and an additional eight interviewers were trained during the year. Of the original 82 interviewers, 3 were released immediately after the training (1 for poor performance and 2 for personal reasons). During the year, 15 interviewers resigned for personal reasons and 2 were released for poor performance. Thus, 20 (22%) of the 90 interviewers trained for the CSFII/DHKS 1994 terminated their employment. This percentage is similar to Westat's experience on other long-term surveys.

Two of the five senior interviewers left their positions by choice. One took a full-time job and the other continued as an interviewer but was unable to complete the travel required of the

senior interviewers. They were replaced by two interviewers who had worked on the survey since January 1994 and had demonstrated their ability to achieve high response rates and complete interviews with few errors. Each had more than 6 years of interviewing experience with Westat. The regional supervisors provided in-depth telephone training on the duties of a senior interviewer, including procedures for evaluating taped interviews, conducting in-person observations, and assisting with validations.

3.4.2 Management

3.4.2.1 Reporting Structure

Every interviewer had a weekly telephone conference with his or her supervisor to report on the work completed during the week and plans for completing his or her assignment. The supervisor used the Field Management System (FMS) reports (the FMS is described in Section 3.4.2.2) to discuss interviewer productivity, costs, and data quality.

Following the weekly conferences with their interviewers, the supervisors reported to Westat's field director in the home office. These telephone conferences between the supervisors and the field director were focused on resolving issues of interviewer performance and assignments, response rates, and data quality. Supervisors also had to report on their progress in completing quality control procedures.

3.4.2.2 Field Management System (FMS)

Westat developed the FMS to enable the field supervisory and project management staff to maintain close control over the data collection effort. Field interviewers received laptop computers with modems that held the system software for the FMS. Each supervisor was also given a laptop computer with the FMS software and relevant case assignment information for her region. Interviewers entered status codes and information about each sampled DU and SP, as well as time and expense information. Once a week, interviewers transmitted their data to the home office, which in turn transmitted relevant data to the field supervisors.

Weekly reports were generated and used by supervisors and the home office to monitor production, response rates, and costs associated with the data collection. Specialized reports were also produced that allowed supervisors to monitor whether survey procedures were being followed. For example, reports were generated to show the percentage of Day 1 Intake interviews completed on each day of the week, because a goal of the study was to have an even distribution of interviews across the days of the week. Reports were also generated to show whether the Day 2 interview was being conducted 3 to 10 days after the Day 1 interview, as required by the survey procedures. These reports were provided at the interviewer and PSU level for the supervisors and for each PSU and supervisory region for the home office.

3.4.3 Data Collection Procedures

3.4.3.1 Introduction

The data collection procedures for the CSFII/DHKS 1994 were numerous and complex. Adhering to all procedures while still achieving the response rates specified in the contract was a delicate balance that required close attention to the field work and careful judgment about when and how corrective action should be taken. Westat and ARS staff worked together on decisions concerning the appropriate action needed to meet the procedural requirements. The data collection procedures are summarized in Exhibit 3-1 and described in this section of the report.

3.4.3.2 Contact Protocol

The interviewer's first task was to conduct a screening interview with each sampled DU. The objective of the screening effort was to select a specified number of low-income and non-low-income males and females of selected age groups, in accordance with the sample design requirements.¹ Interviewers were instructed to administer the Screener Questionnaire in person with a household member 18 years of age or older.

¹ The contract requires that the sample be drawn in such a way that, within each of the 3 years of data collection, the distribution of SPs approximates the overall distribution across sex-age groups. It further specifies that each sample stratum and PSU must be sampled in every quarter of the year. Therefore, within the 62 PSUs, the 36 segments selected for the 3 survey years were divided into 12 sets of 3 segments each, and a set of 3 segments per PSU was assigned for fieldwork for each of the 12 quarters of the 3-year survey period.

Exhibit 3-1. Summary of data collection procedures

	Respondent	Mode of Administration	Contact Rules
Screener	HH member 18 years or older	In-Person	Contact on one of specified Day 1 Intake interview days, if possible.
Household Questionnaire	Main food preparer or meal planner for the HH or another adult knowledgeable about household characteristics, especially income. Does <u>not</u> have to be an SP.	In-Person	Attempt to complete on same day as Screener and Day 1 Intake interview. Setting up an appointment is permissible <u>only</u> if HHQ respondent is not an SP <u>or</u> is an SP and has completed both Intake interviews <u>or</u> is an SP and has not completed the Day 1 Intake AND NO OTHER SP in the household has completed an Intake.
Day 1 Intake Questionnaire	SP or Adult Proxy: <ul style="list-style-type: none"> ▪ child SP under 6 ▪ In combination with child SP 6-11 ▪ Mentally or physically impaired 	In-Person	Conduct on 1 of 3 days specified on the assignment label. Appointment is permissible if <u>no</u> Day 1 Intakes are completed in the HH. An appointment can be made with one, some, or all SPs in the HH <u>if</u> the appointment is for the same date and time. Only one appointment/visit is allowed per HH and it must be to administer the first Day 1 Intake(s) in the HH. No additional appointments are permitted.
Day 2 Intake Questionnaire	SP or adult proxy as detailed above.	In-Person. In a small number of cases by telephone <u>only</u> if approved by Supervisor <u>in advance</u> .	Conduct 3-10 days after Day 1 interview and on a different day of the week. No appointments permissible.
DHKS	SP 20 years of age or older who has completed Day 1 interview. Selected by FMS.	Telephone. In-person for special situations approved in advance by Supervisor.	Conduct 2-3 weeks after the Day 2 interview. Schedule an appointment after conducting the Day 2 interview.

After multiple unsuccessful attempts to complete the Screener with the sampled DU, the interviewer attempted to collect only limited age and sex information from a household member 18 years of age or older. Based on the information provided, the interviewer followed the SP selection instructions in the Screener. If SPs were selected, the interviewer attempted to contact the SPs to complete the Screener and the necessary interviews. This procedure was used to complete 503, or 6 percent, of the Screeners.

When interviewers were unable to obtain screening information from the sampled DU, they followed procedures for approaching neighbors to collect information about the household members living at the selected address. Specifically, after the second unsuccessful attempt to obtain screening information from the sampled DU, the interviewer approached a "neighbor" (who could be someone living next door, a postman, an apartment manager, a storekeeper, or anyone who was likely to know something about the household composition) to obtain the age and sex of the residents of the sampled DU. After a third unsuccessful attempt, the interviewer contacted a second neighbor and confirmed the information obtained from the first informant. After a fourth unsuccessful contact attempt, the case was finalized as having been completed with neighbor information. Based on the information provided by the neighbor, the interviewer followed the SP selection instructions in the Screener. If SPs were selected, the interviewer continued his or her efforts to contact the sampled household to complete the Screener and the necessary interviews.

If SPs were selected as a result of the screening interview, the Household Questionnaire was usually the next instrument administered. The interviewers had discretion, however, to complete the Intake interviews before administering the Household Questionnaire. Interviewers might exercise this option for a number of reasons: (1) a qualified Household Questionnaire respondent was unavailable; (2) an SP would be unavailable for the Day 1 Intake if the Household Questionnaire was completed first; or (3) the interviewer thought that the income questions in the Household Questionnaire might result in a refusal to the Intake interviews. The respondent to the Household Questionnaire did not have to be an SP. The preferred respondent was the main food preparer or planner for the household. When that person was unavailable, another household member who was knowledgeable about the household, particularly about household income information, was asked to respond.

Day 1 Intake interviews were to be conducted in person. Whenever possible, the interviewers conducted the first Day 1 Intake interview with the SP who was the main meal preparer.

This procedure was developed because the main preparer is best able to describe the ingredients used in dishes prepared at home. His or her report could then be used as a reference for the home-prepared foods eaten by other SPs. A knowledgeable adult in the household was also asked to complete the Intake interview for all SPs under 6 years of age and to assist SPs 6 to 11 years of age in reporting food and beverages consumed. SPs 12 years of age and older reported for themselves. Proxy reporting was required to complete 72 Day 1 Intake interviews and 68 Day 2 interviews because the SP had a physical or mental handicap that interfered with the ability to self-report. Examples of SPs requiring proxy interviews include terminally ill patients and stroke victims. Interviewers were allowed to make up to three in-person visits to obtain a Day 1 Intake interview and could make additional visits if authorized by the supervisor. Although the supervisor could authorize that Intake interviews be conducted by telephone if necessary, no CSFII/DHKS 1994 Day 1 Intakes were conducted by telephone.

The Day 2 Intake interview was conducted with SPs who had completed a Day 1 Intake interview. The interview was also to be conducted in person. If in-person administration was impossible, the supervisor was permitted to approve a small number of telephone interviews. A total of 152, or 3 percent, of the Day 2 Intake interviews were conducted by telephone. Of these, 63 interviews were approved because the Day 1 Intake had been completed by a traveling interviewer who was no longer in the PSU at the time of the Day 2 interview. Another 52 interviews were completed by telephone because the SP was unavailable or refused to be interviewed in person. Table 3-3 shows the reasons supervisors approved telephone interviews.

Table 3-3. Day 2 Intake Questionnaires completed by telephone

Reason for telephone interview	N	%
No local interviewer in PSU	63	41.4
Only way respondent could/would participate	52	34.2
Nonresponse conversion	22	14.5
Conducted in Spanish, no bilingual interviewers in PSU	15	9.9
	152	100.0

A respondent to the DHKS Questionnaire was selected in each household with one or more SPs 20 years of age or older who had completed a Day 1 Intake interview.¹ The survey procedures specified that the DHKS interviews were to be conducted by telephone 2 to 3 weeks after the Day 2 Intake. In households without telephones, or if the selected SP was incapable of responding to the questionnaire over the telephone, the DHKS was to be conducted in person. A total of 294 (16%) of the DHKS interviews were completed in person. Table 3-4 shows the frequency of in-person DHKS interviews and the reasons that the questionnaire was administered in person.

Table 3-4. DHKS interviews completed in person

Reason for in-person interview	N	%
No telephone	120	46.7
Respondent's physical limitations (hard of hearing, feeble, etc.)	63	24.5
Refusal to participate in telephone interview	27	10.5
Language other than Spanish or English and translator required	25	9.7
Nonresponse conversion	22	8.6
	257*	100.0

*A total of 294 DHKS interviews were conducted in person. Documentation was available for 257 of these interviews. In 37 cases, the interviewer failed to document the reason for conducting the DHKS in person. Procedures have been implemented for the CSFII/DHKS 1995 to improve documentation.

3.4.3.3 Scheduling Protocol

Procedures for scheduling the Day 1 Intakes were established to meet two requirements:

1. Day 1 Intake interviews were to be completed evenly across the year; and
2. At least 10 percent of the Day 1 Intake interviews were to be conducted on each day of the week.

¹ A Day 1 Intake was completed by a proxy for 72 SPs. Adult respondents requiring a proxy included persons who were mentally handicapped or ill. These SPs were not eligible for DHKS selection.

To meet the first requirement in each PSU, all DUs within a segment were randomly assigned to be completed within a given quarter of the year. This resulted in the assignment of three segments to each quarter of the year.

Day 1 Intake interviews were generally evenly distributed throughout the year, with 23.1 percent of the total Day 1 interviews completed in Quarter 1, 24.4 percent in Quarter 2, 26.2 percent in Quarter 3, 25.0 percent in Quarter 4, and 1.3 percent in January 1995. Between 1 and 3 percent of the SPs did not complete their Day 1 interviews in their assigned quarter and went into the next quarter. This occurred primarily because the Screener was completed late in the quarter and the SPs could not be interviewed immediately. Table 3-5 shows the number of completed Intake interviews by month of the year. The pattern shows that the largest percentage of Intake interviews were completed in the months immediately following the release of a new quarter's assignments to interviewers (assignments were released on January 17, April 21, July 21, and October 13) and the percentage decreased in each succeeding month of the quarter as only the more hard-to-reach cases remained.

To ensure that at least 10 percent of the interviews were completed on each day of the week, Westat developed procedures for assigning each DU a 3-day "window" during which the Day 1 Intake could be conducted (e.g., Monday/Wednesday/Sunday or Thursday/Friday/Saturday). Two patterns were assigned in each segment, allowing the interviewer to work in the segment most days of the week. The FMS captured the days on which the Day 1 Intakes were completed and produced reports summarizing this information. The supervisors and project managers were able to monitor the spread of interviews and to take remedial action if a shortfall was identified on any day of the week.

Table 3-6 shows that the requirement was met for every day of the week. Remedial action was occasionally necessary to ensure that 10 percent of the Day 1 Intake interviews were completed on Friday. Although there was no contractual requirement to complete 10 percent of the Day 2 Intake interviews across the 7 days of the week, Table 3-7 illustrates that the Day 2 interviews were also fairly evenly spread across the week, although fewer than 10 percent of the Day 2 interviews were completed on Sunday.

Table 3-5. Day 1 Intake interviews completed by month

	N	%
January 1994	275	4.9
February	602	10.8
March	414	7.4
April	327	5.8
May	580	10.4
June	457	8.2
July	364	6.5
August	715	12.8
September	387	6.9
October	499	8.9
November	674	12.1
December	223	4.0
January 1995	72	1.3
Total CSFII/ DHKS 1994	5,589	100.0

Table 3-6. Number of completed Day 1 Intake interviews, by day of the week, by quarter, and in total

	Day of the week															
	Sunday		Monday		Tuesday		Wednesday		Thursday		Friday		Saturday		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Quarter 1	188	13.08	250	17.40	208	14.47	163	11.34	189	13.15	148	10.30	291	20.25	1,437	100.0
Quarter 2	157	10.82	215	14.82	245	16.88	288	19.85	196	13.51	149	10.27	201	13.85	1,451	100.0
Quarter 3	150	10.92	240	17.47	247	17.98	215	15.65	176	12.81	130	9.46	216	15.72	1,374	100.0
Quarter 4	199	15.00	242	18.24	184	13.87	187	14.09	139	10.47	150	11.30	226	17.03	1,327	100.0
Total	694	12.42	947	16.94	884	15.82	853	15.26	700	12.52	577	10.32	934	16.71	5,589	100.0

Table 3-7. Number of completed Day 2 Intake interviews, by day of the week, by quarter, and in total

	Day of the week															
	Sunday		Monday		Tuesday		Wednesday		Thursday		Friday		Saturday		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Quarter 1	100	7.40	221	16.36	268	19.84	211	15.62	202	14.95	208	15.40	141	10.44	1,351	100.0
Quarter 2	105	7.66	236	17.21	252	18.38	238	17.36	232	16.92	159	11.60	149	10.87	1,371	100.0
Quarter 3	92	7.00	241	18.34	280	21.31	215	16.36	180	13.70	168	12.79	138	10.50	1,314	100.0
Quarter 4	73	5.73	254	19.92	237	18.59	232	18.20	150	11.76	214	16.78	115	9.02	1,275	100.0
Total	370	6.97	952	17.93	1,037	19.53	896	16.87	764	14.39	749	14.10	543	10.22	5,311	100.0

Another scheduling requirement was that interviewers were only permitted to make appointments for the first Day 1 Intake(s) conducted with SPs in a household. If additional SPs had to be interviewed from that same household, the interviewer could not schedule any appointments. The reason behind this rule was the belief that SPs' eating behavior might be influenced if they knew they would have to report their food intake. The same logic applies for the Day 2 interviews; therefore, interviewers could not schedule appointments for their Day 2 interviews. Obviously, these restrictions made it more difficult for interviewers to find SPs at home to be interviewed.

Another scheduling protocol required that the Day 2 Intake be conducted within 3 to 10 days of the Day 1 Intake. Approximately 75 percent of the Day 2 Intake interviews met this survey requirement. Table 3-8 shows the frequency of Day 2 Intakes that were not completed within the 3- to 10-day window and the reason for that occurrence. Approximately 91 percent of the 1,363 mistimed Day 2 interviews were conducted more than 10 days after the Day 1 Intake. Of these, 70 percent were mistimed because respondents were unavailable within the specified time period, a factor over which the interviewers had little control. Also, ARS preferred that Day 2 Intakes be mistimed rather than conducted over the telephone. Data not presented in Table 3-8 indicate that, of the Day 2 Intakes completed after 10 days, approximately one-third were conducted within 14 days of the Day 1 Intake and more than 80 percent were conducted within 30 days of the Day 1 Intake.

The Day 2 Intake was also to be completed on a different day of the week than the Day 1 Intake. Table 3-8 also shows that 1.7 percent of the Day 2 interviews were conducted on the same day of the week as the Day 1 interview. Therefore, 98.3 percent of Day 2 interviews were conducted in accordance with this scheduling requirement.

Interviewers were instructed to set up an appointment to conduct the DHKS interview by telephone within 2 to 3 weeks after the completion of the Day 2 Intake interview in the household (or final nonresponse to the Day 2 Intake), as required by the scheduling protocol. The timing of the DHKS interview was intended to lower respondent burden and to increase the independence between the Intake interviews and the DHKS. Three to 5 days before the scheduled appointment, the interviewer mailed the SP a reminder card that listed the appointment day and time or hand delivered the card if he or she was at the DU conducting an interview with another SP. Approximately 73 percent of the DHKS interviews met this requirement. Table 3-9 shows the timing of the DHKS interview in relation to the conduct of the Day 2 Intake interview. Of the 511 DHKS interviews that

Table 3-8. Mistimed Day 2 Intake interviews

Reason	Conducted less than 3 days after Day 1 Intake		Conducted more than 10 days after Day 1 Intake		Conducted same day of week as Day 1 Intake		Total mistimed	
	N	%	N	%	N	%	N	%
SP availability	5	20.0	867	69.5	30	33.0	902	66.2
Weather problems			111	8.9			111	8.1
Work completed by interviewer on travel/status			106	8.5			106	7.8
Held for nonresponse conversion			90	7.2	12	13.2	102	7.5
Interviewer error	20	80.0	35	2.8	49	53.8	104	7.6
Translator availability			34	2.7			34	2.5
Observer's schedule			4	0.3			4	0.3
Total	25	0.5*	1,247	23.5*	91	1.7*	1,363	25.7*

*Percentage of all completed Day 2 Intake interviews.

Table 3-9. Timing of DHKS interviews

Weeks between Day 2 Intake and DHKS	DUs with only one SP 20+		DUs with more than one SP 20+: All Day 1 Intakes conducted on same day		Subtotal		DUs with more than one SP 20+: All Day 1 Intakes NOT conducted on same day		Total	
	N	%	N	%	N	%	N	%	N	%
Less than 2	38	4.7	28	4.1	66	4.4	20	5.3	86	4.6
2 to 3	611	75.2	518	75.2	1,129	75.3	236	62.8	1,365	72.8
Greater than 3	162	20.0	143	20.7	305	20.3	120	31.9	425	22.6
Total	811	100.0	689	100.0	1,500	100.0	376	100.0	1,876*	100.0

*There were three DHKS Questionnaires with incorrect dates of administration. These have not been included in the table.

were not conducted within the prescribed window, 17 percent were completed too soon and 83 percent were completed after 3 weeks. Reasons for conducting the DHKS too soon included the respondent's expected absence during the prescribed window and interviewer error. Reasons for conducting interviews beyond the window period included broken appointments, numerous unsuccessful attempts to interview (e.g., the respondent was too busy or not at home), and refusal conversions by another interviewer(s).

Also contributing to the number of DHKS interviews conducted after the window were specifications for DHKS respondent selection in households with more than one adult SP. DHKS respondent selection requirements specify that one adult per DU be randomly selected from SPs 20 years of age or older who completed the Day 1 Intake. To ensure that all qualifying SPs in the household had a probability of selection, the DHKS respondent was selected after all SPs in the DU had completed the Day 1 Intake interview (or been finalized as a nonrespondent). It was not unusual for SPs in a household to have their Day 1 Intake interviews conducted at different times during the quarter. Therefore, it was possible for some SPs within the same household to have their Day 2 Intake interviews completed before other SPs completed their Day 1 Intake interviews. This made it very difficult to select the DHKS respondent after all the Day 1 Intake interviews were complete and to complete the DHKS 2 to 3 weeks after the Day 2 Intake interview was administered. As shown in Table 3-9, 376 DHKS respondents were in multiple SP households that presented the scheduling problem and only 63 percent of the DHKS interviews were completed within 2 to 3 weeks. In households with only one SP or multiple SPs who all completed their Day 1 Intakes on the same day, 75 percent of the DHKS interviews met the scheduling requirement.

3.4.3.4 Data Retrieval for Missing Meals

When conducting Intake interviews for children, it was often necessary to perform data retrieval for meals eaten away from home because many children regularly spend time away from their parents with a babysitter, in daycare, or in some preschool or school setting. The parent or other person most knowledgeable about the child's food consumption at home may have little or no information about what the child eats and drinks in settings outside the home. In such cases, the interviewer was required to supplement the information provided by the parent with information from other sources. Sources contacted included schools, child daycare centers, and babysitters.

During the Intake interview, the interviewer obtained as much information as possible from the SP or proxy before attempting data retrieval for a missing meal. The interviewer was responsible for collecting the missing data within 3 days of the interview and usually by telephone. The data required depended on the amount of information collected from the SP or proxy and the type of data retrieval source. For example, schools typically could provide meal descriptions and quantities *served* whereas babysitters could provide descriptions and quantities *eaten*. Of the 10,912 Day 1 and Day 2 Intakes collected, 197 (less than 2%) required missing meal data retrieval at the time of interview. The data retrieval effort was very successful. Of the 197 Intakes requiring retrieval, interviewers were unable to collect the missing information in only 10 cases. Table 3-10 summarizes the number of Intakes for which data retrieval was performed.

Table 3-10. Distribution of Intakes requiring data retrieval, by SP age and Intake interview

SP age (years)	Day 1		Day 2		Total	
	N	%	N	%	N	%
< 6	56	54.4	59	62.8	115	58.4
6-11	37	35.9	25	26.6	62	31.5
> 11	10	9.7	10	10.6	20	10.1
	103	100.0	94	100.0	197	100.0

The interviewers reported some problems in scheduling the data retrieval calls and in locating the most knowledgeable source to answer the detailed FIB probes. The interviewers also encountered some reluctance to provide requested information on the part of school and daycare personnel and babysitters. Interviewers overcame this reluctance by providing a thorough explanation of the study and, if necessary, mailing or hand delivering the survey brochure.

All data retrieval contacts were recorded on the Follow-up Call Record in the Household Folder. Table 3-11 summarizes contact information for the 197 Intakes requiring data retrieval. In most cases, data retrieval involved contacting schools by telephone to collect missing information about lunches. Fifty-eight (29%) of the 197 Intakes were missing data from two meals and 27 (14%) were missing data from three meals.

Some data retrieval was also done in-house after the Intake was reviewed and it was determined that it did not meet minimum criteria. Refer to Section 4.5.2.2, Minimum Criteria for Intakes, for more information about this data retrieval effort.

3.4.3.5 Respondent Incentives

Several small gifts were given to SPs to encourage participation in the survey. The set of stainless steel measuring cups and spoons that were used as measuring guides for the Intake interview was also given to eligible households following the completion of the Screener. An insulated nylon bag with the survey logo was presented to each SP before the Day 1 Intake. After completing the Day 2 Intake, the interviewer gave the SP a travel-type drinking mug, also imprinted with the survey logo, as a thank-you for participating.

Table 3-11. Summary of contacts to conduct data retrieval

Summary information	Contacts	
	N	%
Sources		
School	104	52.8
Child daycare	46	23.4
Babysitter	27	13.7
Adult daycare	5	2.5
Other	7	3.5
Not ascertained	8	4.1
Total	197	100.0
Type of attempts		
Telephone	164	74.9
In person	55	25.1
Total	219*	100.0
Missing meal		
Breakfast only	5	2.5
Lunch only	83	42.2
Snack only	11	5.6
Dinner/supper only	3	1.5
Breakfast and lunch	30	15.2
Lunch and snack	22	11.2
Other combination of two meals	6	3.0
Three meals	27	13.7
Meal not ascertained	10	5.1
Total	197	100.0

*For a few cases, both telephone and in-person contacts were required.

3.4.3.6 Market Checks

A market check was requested from ARS whenever an SP reported consuming a food that was new on the market, a food specific to a geographic area, or an unknown ethnic food. One market check was also requested when an SP reported a new item from a restaurant. For the CSFII/DHKS 1994, interviewers conducted approximately 185 market checks, purchased 146 products, and sent the labels or packages to Westat. Interviewers were unable to locate 31 of the reported foods and 8 "did not exist" according to the manufacturers.

3.5 Data Collection Results

3.5.1 Achieving Response Rates

The response rates for the CSFII/DHKS 1994 exceeded the stated goals for all of the survey's questionnaires. Table 3-12 summarizes the response rate goals and the rates achieved for each questionnaire type. ARS established criteria for when each instrument could be considered complete. The response rates were calculated as follows:

- The **Screeners response rate** is the number of DUs screened, divided by the number of occupied units selected for screening. Units that were found to be vacant or that did not meet the definition of a DU were not included in the calculation.
- The **Household Questionnaire response rate** is the number of completed Household Questionnaires, divided by the number of DUs with selected SPs.
- The **Intake interview response rate** is the number of completed Intake Questionnaire(s), divided by the total number of selected SPs.
- The **DHKS response rate** is the number of completed DHKS Questionnaires, divided by the total number of SPs selected for the DHKS.

Attachment 3.G lists the response rates by questionnaire type for each PSU. The response rates in most PSUs were favorable but they do vary because of differences in willingness to participate in areas of the country.

Table 3-12. Response rates by questionnaire type

Questionnaire	Response rate goal (%)	Number eligible*	Number of completed interviews	Actual response rate (%)
Screeners	98	8,467	8,333	98.4
Household Questionnaire	85	3,264	2,813	86.2
Day 1 Intake	80	6,864	5,589	81.4
Day 2 Intake	75	6,863	5,311†	77.4
DHKS	90	2,047	1,879	91.8

*Does not include households (N=2) and SPs (N=4 for Day 1, 5 for Day 2, and 2 for DHKS) who left the population of interest before completing the necessary interview. (See Section 6.1 for a discussion of the population of interest.)

†Ninety-five percent of SPs completing the Day 1 Intake also completed the Day 2 Intake.

A three-phase approach to building response rates was used:

- **Phase 1.** Local interviewers worked their assigned cases, making the required number of visits to try to complete all necessary interviews with a household. If an interviewer was unsuccessful in completing an interview, the case received a nonresponse code until the interviewer could consult further with the supervisor. After reviewing the Call Record, the supervisor advised the interviewer on when to return to the household and how to approach the SP(s). In some cases, the supervisor instructed the interviewer to complete a Non-interview Report Form (NIRF) describing the circumstances of the nonresponse and to mail the case materials to her.
- **Phase 2.** The supervisor reviewed the NIRF for each nonresponse case. If the supervisor believed that conversion was possible, she either returned the case to the interviewer for additional work or transferred it to another local interviewer, if one was available. If a local interviewer was not available, the work was assigned to an interviewer in a nearby PSU.
- **Phase 3.** In the final stages of response rate conversion, the supervisor reviewed the PSU-level response rates and the NIRFs for the PSU to determine the productivity and cost effectiveness of a nonresponse conversion trip by the senior interviewer or another experienced interviewer.

3.5.2 Contribution of Neighbor Information to Screener Response Rate

Interviewers were instructed to obtain Screener information from neighbors when the members of the selected household refused to participate or when no contact had been established with the household after four attempts. (See Section 3.4.3.2 for a discussion of neighbor contact procedures.) Of the 8,333 Screener Questionnaires completed at occupied DUs, 886 (10.6%) were completed with neighbors. Supplementing household screening with information from a cooperative neighbor allowed Westat to achieve a 98.4 percent Screener response rate. Without the 886 cases for which the abbreviated household enumeration was completed by a neighbor, the Screener response rate would have been 88 percent.

Table 3-13 categorizes screened households according to the source of Screener information (neighbor or household member) and eligibility (whether the household had SPs selected). Of the 886 households where the screening information was collected from a neighbor, 82 households had selected SPs and 804 were screened out of the survey with no selected SPs.

Table 3-13. Distribution of households for which a completed Screener Questionnaire was obtained, by source of Screener information and household eligibility status

Eligibility of household	Screener information from a household member		Screener information from a neighbor*	
	N	%	N	%
Eligible	3,184	97.5	82	2.5
Ineligible	4,263	84.1	804	15.9
Total	7,447	89.4	886	10.6

* A neighbor is anyone who is not a member of the sampled household (e.g., mailman, storekeeper, apartment manager, person living nearby).

The interviewers made extensive efforts to complete interviews at eligible households identified through neighbors. Of the 205 households initially determined to be eligible through neighbor information, 89 Screeners, or 43 percent, were subsequently completed with household members and the SPs in most cases went on to complete the Intakes. In another 34 cases, contact was attempted with the selected household but cooperation was denied, it was determined that the household was ineligible, or the unit was determined to be unoccupied. In 82 cases, contact was not established with the selected household and the neighbor's report of household eligibility prevailed.

3.5.3 Reasons for Nonresponse

Table 3-14 illustrates the reasons for nonresponse by questionnaire type. Refusals accounted for more than 50 percent of nonresponse for each questionnaire type. The next largest category of nonresponse, referred to as maximum attempts, was when the interviewer was not able to contact the household. In most cases, the supervisor authorized many more than the required number of attempts to complete the interview, but the outcome was unchanged.

Also contributing to nonresponse were SPs who were too ill to be interviewed, SPs who spoke neither English nor Spanish and for whom a suitable translator could not be located (e.g., Russian and Polish speakers), SPs who moved and could not be located, and a small number of households located in limited-access buildings or communities. Cases of nonresponse involving language problems or limited-access buildings or communities were not concentrated in particular PSUs. Limited-access buildings and communities received special handling. The interviewer first tried to secure the cooperation of the building manager and then persuade the sampled households to participate. If building managers resisted, the home office contacted them by telephone or letter to explain the survey and the importance of giving selected households an opportunity to participate. If this approach was unsuccessful, the cases were classified as nonresponse.

3.5.4 Demographic Profiles of Respondents and Nonrespondents

Tables 3-15 through 3-18 present the distributions of respondents and nonrespondents with respect to selected demographic and other characteristics. Table 3-15 compares the distribution of the Screener Questionnaire respondents with the corresponding distribution of nonrespondents, by Census region, MSA status of PSU, and minority status of segment. The "unit of analysis" in Table 3-15 is an occupied DU (household). Table 3-16 compares the distribution of the Household Questionnaire respondents with the corresponding distribution of nonrespondents, by income level and number of SPs selected from the household for the Intake interviews. The unit of analysis in this table is a household with any eligible SPs. Also, note that the low-income group in this table includes only households that were classified as below 130 percent of Federal poverty guidelines on the basis of the response to either Screener Questionnaire S14 or Household Questionnaire H47 (i.e., the category does not include any households with missing income data).

Table 3-14. Reasons for nonresponse by questionnaire type

Disposition	Screener		Household Questionnaire		Day 1 Intake		Day 2 Intake		DHKS	
	N	%	N	%	N	%	N	%	N	%
Refusal/breakoff	88	65.7	348	77.2	946	74.2	1,112	71.6	91	54.2
Maximum contact	37	27.6	70	15.5	183	14.4	251	16.2	24	14.3
Unavailable for field period	1	0.7	10	2.2	40	3.1	51	3.3	6	3.6
Language problem	3	2.2	7	1.6	38	3.0	39	2.5	4	2.4
Moved, unable to locate/interview	--	--	9	1.9	35	2.7	47	3.0	19	11.3
Other	5	3.7	7	1.6	29	2.3	44	2.8	24	14.2
Intakes failing to meet minimum criteria for acceptability	--	--	--	--	4	0.3	8	0.5	--	--
Total nonresponse	134	100.0	451	100.0	1,275	100.0	1,552	100.0	168	100.0

N = the number of cases finalized per disposition.

% = the percentage of nonresponse per disposition per questionnaire type.

Table 3-15. Distribution of households in screening sample by response status (Screener respondent vs. Screener nonrespondent) by region, MSA status, and minority density of segment

Census region	MSA status	Minority density	Screener respondents				Screener nonrespondents	
			Number of households with eligible SPs	Percent of column total	Number of households with no eligible SPs	Percent of column total	Number of households	Percent of column total
Northeast	MSA	High	116	3.6	165	3.3	10	7.5
		Low	428	13.1	753	14.9	23	17.2
	Non-MSA	High	0	0.0	0	0.0	0	0.0
		Low	61	1.9	120	2.4	4	3.0
Midwest	MSA	High	114	3.5	117	2.3	12	9.0
		Low	469	14.4	776	15.3	8	6.0
	Non-MSA	High	7	0.2	4	0.1	0	0.0
		Low	228	7.0	351	6.9	1	0.7
South	MSA	High	223	6.8	340	6.7	9	6.7
		Low	468	14.3	809	16.0	10	7.5
	Non-MSA	High	79	2.4	92	1.8	0	0.0
		Low	234	7.2	325	6.4	7	5.2
West	MSA	High	151	4.6	169	3.3	18	13.4
		Low	552	16.9	863	17.0	29	21.6
	Non-MSA	High	51	1.6	60	1.2	3	2.2
		Low	85	2.6	123	2.4	0	0.0
Total			3,266	100.0	5,067	100.0	134	100.0

Table 3-16. Distribution of households with eligible SPs by Household Questionnaire response status (respondent vs. nonrespondent) by income (if available) and number of SPs

Income group	Number of SPs	Household Questionnaire response status			
		Respondents		Nonrespondents	
		Number of households with SPs	Percent of column total for income group	Number of households with SPs	Percent of column total for income group
All income	1	1,113	39.6	198	43.9
	2	917	32.6	154	34.1
	3+	783	27.8	99	22.0
Total		2,813	100.0	451	100.0
Low income	1	343	43.0	13	48.1
	2	208	26.1	7	25.9
	3+	247	31.0	7	25.9
Total		798	100.0	27	100.0

Table 3-17. Distribution of SPs by Day 1 Intake response status by sex, age, and income

Sex	Age (years)	Income group	Day 1 Intake response status			
			Respondents		Nonrespondents	
			Number of SPs	Percent of column total for income group	Number of SPs	Percent of column total for income group
Male	< 1	All income	61	1.1	8	0.6
	1-2		255	4.6	32	2.5
	3-5		295	5.3	56	4.4
	6-11		255	4.6	36	2.8
	12-19		284	5.1	63	4.9
	20-29		268	4.8	75	5.9
	30-39		312	5.6	81	6.4
	40-49		303	5.4	94	7.4
	50-59		266	4.8	100	7.8
	60-69		245	4.4	93	7.3
	70+		255	4.6	66	5.2
Females	< 1		69	1.2	10	0.8
	1-2		248	4.4	29	2.3
	3-5		302	5.4	34	2.7
	6-11		259	4.6	43	3.4
	12-19		271	4.8	57	4.5
	20-29		272	4.9	70	5.5
	30-39		293	5.2	53	4.2
	40-49		300	5.4	69	5.4
	50-59		292	5.2	77	6.0
	60-69		243	4.3	71	5.6
	70+		241	4.3	58	4.5
		Total	5,589	100.0	1,275	100.0
Males	< 1	Low income	25	1.5	3	1.8
	1-2		86	5.2	3	1.8
	3-5		89	5.4	10	6.1
	6-11		65	3.9	3	1.8
	12-19		97	5.9	9	5.5
	20-29		108	6.5	21	12.8
	30-39		86	5.2	14	8.5
	40-49		82	5.0	21	12.8
	50-59		61	3.7	9	5.5
	60-69		58	3.5	7	4.3
	70+		59	3.6	9	5.5
Females	< 1		29	1.8	3	1.8
	1-2		87	5.3	4	2.4
	3-5		103	6.2	3	1.8
	6-11		74	4.5	3	1.8
	12-19		79	4.8	6	3.7
	20-29		105	6.4	10	6.1
	30-39		87	5.3	4	2.4
	40-49		82	5.0	10	6.1
	50-59		66	4.0	2	1.2
	60-69		57	3.5	4	2.4
	70+		64	3.9	6	3.7
		Total	1,649	100.0	164	100.0

Table 3-18. Distribution of SPs by Day 1 and Day 2 Intake response status by sex, age, and income

Sex	Age (years)	Income group	Day 1 and Day 2 Intake response status			
			Respondents		Nonrespondents*	
			Number of SPs	Percent of column total for income group	Number of SPs	Percent of column total for income group
Male	< 1	All income	58	1.1	11	0.7
	1-2		246	4.6	41	2.6
	3-5		289	5.4	62	4.0
	6-11		253	4.8	38	2.4
	12-19		266	5.0	81	5.2
	20-29		244	4.6	99	6.4
	30-39		296	5.6	97	6.2
	40-49		287	5.4	110	7.1
	50-59		255	4.8	111	7.2
	60-69		232	4.4	106	6.8
	70+		233	4.4	88	5.7
Female	< 1	All income	68	1.3	11	0.7
	1-2		235	4.4	42	2.7
	3-5		295	5.6	41	2.6
	6-11		253	4.8	49	3.2
	12-19		261	4.9	67	4.3
	20-29		256	4.8	86	5.5
	30-39		277	5.2	69	4.4
	40-49		286	5.4	83	5.3
	50-59		274	5.2	95	6.1
	60-69		231	4.3	83	5.3
	70+		216	4.1	82	5.3
		Total	5,311	100.0	1,552	100.0
Male	< 1	Low income	23	1.5	5	2.0
	1-2		81	5.2	8	3.2
	3-5		85	5.4	14	5.6
	6-11		64	4.1	4	1.6
	12-19		91	5.8	15	6.0
	20-29		100	6.4	29	11.6
	30-39		82	5.2	18	7.2
	40-49		81	5.2	22	8.8
	50-59		58	3.7	12	4.8
	60-69		55	3.5	10	4.0
	70+		55	3.5	13	5.2
Female	< 1	Low income	28	1.8	4	1.6
	1-2		82	5.2	9	3.6
	3-5		99	6.3	7	2.8
	6-11		72	4.6	5	2.0
	12-19		75	4.8	10	4.0
	20-29		101	6.5	14	5.6
	30-39		81	5.2	10	4.0
	40-49		76	4.9	16	6.4
	50-59		64	4.1	4	1.6
	60-69		52	3.3	9	3.6
	70+		57	3.6	13	5.2
		Total	1,562	100.0	251	100.0

* Includes SPs who completed a Day 1 Intake but not a Day 2 Intake interview.

Tables 3-17 and 3-18 compare the distribution of Intake Questionnaire respondents with the corresponding distribution of nonrespondents, by income level, sex, and age. The unit of analysis in Tables 3-17 and 3-18 is an SP. Finally, Table 3-18A compares the distribution of SPs selected for the DHKS by response status, income level, sex, and age.

The purpose of these descriptive tables is simply to document some differences between the various sets of respondents and nonrespondents. The tables are not intended to give a comprehensive analysis of differences between respondents and nonrespondents. Section 5.2, which describes the nonresponse weighting adjustment procedures, gives more information about demographic and other variables that appear to be related to survey nonresponse.

As Table 3-15 shows, nonresponse to the Screener Questionnaire was generally very low. Any potential bias resulting from Screener nonresponse is therefore likely to be trivial. Nonetheless, there are some differences between Screener respondents and nonrespondents. For example, relatively more nonrespondents live in the Northeast and West regions compared to respondents (indicating lower Screener response rates in the Northeast and West). Similarly, the percentage of Screener nonrespondents in the MSA and high-density minority segments tended to be higher than the corresponding percentage of nonrespondents. Finally, within the set of Screener respondents, the distribution of households with eligible SPs is approximately similar to that of households with no SPs.

Table 3-16, which shows the distribution of households by Household Questionnaire response status, income level, and number of SPs in the household, indicates that a somewhat greater percentage of Household Questionnaire nonrespondents are in households with only one SP compared to respondents. In general, low-income households were more likely than non-low-income households to complete the Household Questionnaire.

Tables 3-17 and 3-18 indicate that a greater percentage of nonrespondents to the Intake interviews were in the 20 to 29 and 50 to 69 age groups when compared with other age groups, indicating lower response rates for these groups. Also, a greater percentage of nonrespondents were male or non-low-income compared to respondents. The tables also indicate that the drop in participation counts from the Day 1 to the Day 2 Intake interview was generally small, with the largest drop occurring for SPs in the 20 to 29 and 70+ age groups.

Finally, the results in Table 3-18A indicate that a greater percentage of DHKS respondents were female or in the middle age groups (30-69 years) compared to nonrespondents.

Table 3-18A. Distribution of SPs selected for DHKS, by response status by sex, age, and income

Sex	Age (years)	Income group	DHKS response status			
			Respondents		Nonrespondents	
			Number of SPs	Percent of column total for income group	Number of SPs	Percent of column total for income group
Male	20-29	All income	132	7.0	19	11.3
	30-39		173	9.2	11	6.5
	40-49		175	9.3	13	7.7
	50-59		151	8.0	15	8.9
	60-69		141	7.5	13	7.6
	70+		130	6.9	16	9.5
Female	20-29		141	7.5	16	9.5
	30-39		177	9.4	13	7.7
	40-49		171	9.1	13	7.7
	50-59		185	9.8	12	7.1
	60-69		150	8.0	10	6.0
	70+		153	8.1	17	10.1
		Total	1,879	100.0	168	100.0
Male	20-29	Low income	53	9.1	7	14.3
	30-39		60	10.3	2	4.1
	40-49		54	9.2	5	10.2
	50-59		37	6.3	5	10.2
	60-69		36	6.2	4	8.2
	70+		31	5.3	4	8.2
Female	20-29		65	11.1	4	8.2
	30-39		57	9.7	5	10.2
	40-49		55	9.4	5	10.2
	50-59		49	8.4	1	2.0
	60-69		39	6.7	3	6.1
	70+		49	8.4	4	8.2
		Total	585	100.0	49	100.0

3.6 Quality Control Measures and Feedback to Field Staff

Westat and ARS conducted an ongoing quality control program throughout the year. The program consisted of practice interviews completed by the interviewers, review of taped interviews, in-person observations of interviews, validation interviews, and regular feedback to the interviewers from the home office staff who processed completed questionnaires.

3.6.1 Quality Control Measures

3.6.1.1 Practice Interviews

After completing the 7-day training session, interviewers were instructed to complete practice interviews of the Screener, Household, Day 1 and Day 2, and DHKS Questionnaires with a neighbor or friend in their home communities. Interviewers mailed their completed practice interviews to their supervisors for review. If the interviewer had an unsatisfactory number of errors or omissions, the supervisor provided telephone retraining by referring the interviewer to sources in the Interviewers Manual or stepping through particular food probes in the FIB. Interviewers also completed a scripted Day 1 Intake over the telephone with their supervisors. As soon as the practice interview and the telephone Intake had been completed to the supervisor's satisfaction, the interviewer was allowed to begin his or her data collection assignment.

3.6.1.2 Taped Interviews

The supervisors continued to monitor the quality of each interviewer's work through a series of three tape-recorded interviews. Each interviewer was instructed to tape record one Intake interview, either a Day 1 or Day 2 interview that had been administered in person, and two DHKS interviews that had been administered over the telephone. Cases to be taped were selected by the regional supervisor in consultation with the interviewer. Additionally, 12 taped Household Questionnaires were required, and 16 were actually taped because some interviewers taped both the Intake and the Household Questionnaire when required to tape the Intake. Westat provided a special telephone adapter to ensure a high-quality recording. Respondent permission was secured in advance of taping.

All taped interviews were mailed to the supervisor or the senior interviewer for evaluation. Listening to the tapes allowed the supervisor or senior interviewer to evaluate the dynamics of the interviewer-respondent interaction and how the interviewer handled the questionnaires. An evaluation form was completed for each tape (see Attachment 3.H), and the results were shared with the interviewer. Evaluation items included the interviewer's ability to follow prescribed procedures and to use measuring guides, handcards, and the FIB probes. In the DHKS interview, supervisors noted whether the interviewer referred to the correct answer categories and used the random starts. A sample of tapes were also reviewed by the field director and the project nutritionist before being forwarded to ARS for review.

Table 3-19 summarizes the evaluations of the taped interviews. An overall evaluation score was assigned by the evaluator, with 1 being poor and 5 excellent. A score of excellent was assigned if the interviewer did not deviate from questionnaire wording. If there was minor paraphrasing, the evaluator judged the tape very good or good depending on the amount of paraphrasing. Of the 16 tape-recorded Household Questionnaire interviews, all were judged excellent or good. Ninety percent of the Intake interviews were excellent to good. In the remaining 10 percent of Intakes judged fair or poor, the interviewers either failed to ask all necessary FIB probes or paraphrased the review questions. Slightly more than 97 percent of the tape-recorded DHKS interviews received an evaluation score of excellent or good. The remaining 3 percent were judged fair or poor because of inadequate or inappropriate probing.

Telephone retraining was provided to the interviewers whenever problems were found with any of the instruments. Supervisors followed up on this retraining through Westat's ongoing quality control procedures discussed in this section.

Table 3-19. Evaluation of taped interviews by questionnaire type

Questionnaire type	Number of taped interviews	Overall rating*				
		5	4	3	2	1
Household Questionnaire	16	2	10	4	0	0
Day 1 Intake	40	8	19	11	2	0
Day 2 Intake	59	11	29	11	5	3
DHKS	156	66	67	19	3	1
Total	271	87	125	45	10	4

*5 = excellent; 4 = very good; 3 = good; 2 = fair; and 1 = poor.

3.6.1.3 In-Person Observations

Westat's field director and field supervisors, ARS staff, and staff from the U.S. Bureau of the Census made in-person observations of interviewers at work. A significant number of observations were also conducted by senior interviewers when they were traveling to PSUs to perform nonresponse conversion.

Forty-two interviewers were observed. The senior interviewers observed 18 interviewers; the regional supervisors, 18; the Westat field director, 2; ARS, 3; and the Census Bureau, 1. The observers saw the conduct of 17 Screeners, 14 Household Questionnaires, 33 Day 1 Intake interviews, and 15 Day 2 Intake interviews.

Most of the observation occurred in the first 6 months of data collection, with the earliest observations being conducted with interviewers who were evaluated as weaker at the January training. All of the interviewers trained in April were observed. Later observation trips also tended to focus on the weaker interviewers but included observations of other interviewers in the same or a nearby PSU. Persons selected for observation by USDA and the Bureau of the Census were selected based on location and availability.

An observation form was completed for each observation conducted by Westat, and the results were shared with the interviewer. Generally, the observers were very pleased with the quality of the interviewers' work, their facility in using the FIB, their skill in getting the respondent to use the measuring guides and handcards, and their general enthusiasm for the survey.

3.6.1.4 Validation Procedure

Westat used validation interviews to verify that an interview had been conducted at the assigned address according to survey procedures. Supervisors validated 10 percent of all assigned cases. Validation cases were randomly selected and included households with SPs, ineligible households, and units reported as vacant. Table 3-20 shows the Screener dispositions for the cases selected for validation. The supervisors conducted most validations by telephone; cases without telephone numbers were completed in person.

Table 3-20. Screener disposition of cases selected for validation

Screener disposition	Cases selected for validation	
	N	%
Eligible, household report	386	38.9
Eligible, abbreviated household report	17	1.7
Eligible, neighbor report	18	1.8
Ineligible, household report	350	35.2
Ineligible, abbreviated household report	9	0.9
Ineligible, neighbor report	59	5.9
Vacant, not a DU	142	14.3
Breakoff	1	0.2
Refusal	11	1.1
Total	993	100.0

During the CSFII/DHKS 1994, 993 cases, or 10.3 percent of sampled DUs, were validated. The problems uncovered during validations are summarized below:

1. Three cases were initially judged to be a potential problem, but when investigated further by the supervisor they proved to be valid.
2. One interviewer mailed to Westat two cases that appeared incomplete. Validation interviews were conducted with all of the cases completed by the interviewer and at Westat. Of the 17 cases that were validated, 4 were found to be fraudulent. The interviewer was dismissed.

Table 3-21 summarizes the results of the validation procedure.

Table 3-21. Validation results by level of validation

Number of cases validated per interviewer	Number of interviewers	Number of validated cases	Validation result codes*		
			01	02	03
< 10	38	195	193	2	0
11-20	50	685	685	0	0
21-30	5	113	108	1	4
Total	93	993	986	3	4

*01 = acceptable; 02 = potential problem; 03 = unacceptable.

For the CSFII/DHKS 1995, the percentage of cases preselected for validation has been increased from 10 percent to 20 percent to increase the chances of conducting validations from the 33 percent of selected DUs with eligible SPs.

3.6.1.5 Quality Review Forms

A quality review of completed questionnaires was performed at Westat's home office before instruments were coded. Coders completed a form documenting the results of the review. These forms were forwarded to the field director, who reviewed them before passing all of them on to the field supervisors. The supervisors received the forms on a weekly basis and discussed all problems with the interviewers. If it helped interviewers to understand their mistakes, the completed questionnaires were photocopied and sent to the interviewer. (For a complete discussion of the review, see Sections 4.5.2 and 4.6.2.)

3.6.2 Feedback to the Field Staff

The quality control measures described above were designed to provide the interviewers with timely information about their performance. Several techniques were used to communicate with the interviewers and to provide retraining, if appropriate.

3.6.2.1 E-Mail Communications

Home office and field staff communicated quickly and efficiently through E-mail. The interviewers' laptop computers were loaded with an E-mail utility program that facilitated communication on issues that required timely resolution, such as the situations described below.

- **SP selection errors.** When the home office's review of a completed Screener Questionnaire revealed that an SP had been selected in error, the field director used E-mail to inform the supervisor of the problem. The supervisor, in turn, reviewed the error with the interviewer and action was taken that would minimize the number of interviews completed with the missampled SP.

- **Information from toll-free calls.** Many of the calls received on the toll-free telephone line at Westat were from respondents wishing to reschedule an appointment or contact an interviewer. Timely delivery of this information to interviewers enhanced the data collection activities.
- **Data clarification.** If a questionnaire item or entry was unclear to coders at the home office, E-mail was used to contact the interviewer for clarification.
- **Requests for refusal conversion letters.** Supervisors used E-mail to request that the home office prepare personalized letters to nonrespondents.

3.6.2.2 Field Staff Memos

Westat also prepared two lengthy field staff memos, one mailed in February and the other in April (Attachment 3.I). The first memo documented the responses to questions that arose during the January in-person training session. This memo was in a question-and-answer format, and interviewers were instructed to add it to their manuals.

The second memo supplemented the spring edition of the newsletter. This memo answered questions from the interviewers' diaries that had been collected the previous month. The memo also reinforced procedures for conducting screening interviews at seasonal dwellings and vacation homes.

3.6.2.3 Newsletter

Three issues of the 8-page survey newsletter, *Food for Thought*, were prepared for the field staff. The field director, the director of data processing, the project nutritionist, and ARS staff provided input, and humorous stories from the interviewers rounded out each issue. The newsletter focused on clarifying questions raised by the interviewers in their interviewer diaries, which were provided to the interviewers with instructions to record questions, unusual situations encountered in the field, procedural questions, questionnaire item clarification, and issues related to the FIB. Interviewers removed completed diary pages from the binder and mailed them to Westat every 4 months. The project nutritionist also anticipated such events as holiday meals or picnic foods that might occur in the near future and provided reminders on how to use the FIB when reporting these food items. The data

preparation manager wrote a column reporting on systematic errors discovered during quality review and coding and re-emphasized proper handling of problem areas.

3.6.2.4 Interviewer Debriefing

In December 1994, interviewers received a questionnaire to capture their reactions to and experiences with a variety of survey materials and procedures. Included were questions about interview scheduling, sampling procedures, working with the FIB and measuring guides, and related issues. The Debriefing Questionnaire became the basis for a 1-day in-person debriefing held in January 1995. Sixty-five interviewers and the five field supervisors attended the debriefing in San Antonio, Texas. The sessions were led by the field supervisors and observed by Westat and ARS staff. Attachment 3.J contains the Interviewer Debriefing Questionnaire, showing the tally of responses and examples of the interviewers' comments. Attachment 3.K summarizes the In-Person Interviewer Debriefing Session.

Additionally at this meeting, 1 day was devoted to training on the revised 1995 survey documents. Eleven interviewers who were unable to attend this session were trained over the telephone by their supervisors, using the materials presented at the in-person session.

3.7 Data Collection Issues

Diet and Health Knowledge Survey

Interviewers were required to obtain the supervisor's approval to conduct DHKS interviews in-person. Interviewers were to record the reason for the in-person interview on the DHKS Call Record with a note that the supervisor had granted permission. The supervisors were instructed to generate from the FMS a log of the IDs of DHKS interviews conducted in person and to record the reason for approval in the comments section of the log. In the CSFII/DHKS 1994, approximately 65 percent of the cases were documented in the supervisor logs. To improve the documentation in the CSFII/DHKS 1995, the logs have been revised to provide a list each week of any new cases approved for in-person conduct. Additionally, the record-keeping requirements have been emphasized with the supervisors and interviewers.

Validation

Ten percent of all cases were randomly selected for validation at the time of sample selection. The supervisor's log indicated which cases had been selected. This procedure is commonly used at Westat to give eligible, ineligible, and nonresponse cases a chance of selection and to spread the validation cases fairly evenly across all interviewers. For the CSFII/DHKS 1995, the percentage of cases preselected for validation has been increased from the 10 percent required by the contract to 20 percent. This change was made to increase the chance of selecting eligible cases with SPs and Intake interviews. In the CSFII/DHKS 1994, it was difficult to monitor the number of validation cases by interviewer because the FMS accepted only one validation result code for each case even though more than one interviewer worked on the case and the work of all interviewers was validated. For this reason, the FMS validation report understated the number of validations per interviewer. For the CSFII/DHKS 1995, a manual system was developed to supplement the FMS and to ensure more precise data on the percentage of validation completed for each interviewer.

Training

Seven consecutive days of interviewer training is a long time for trainees to continue to learn project materials at the required proficiency level. Westat suggests adding 1 day to interviewer training so that the interviewers can be given a half-day off in the middle of training.

4. DATA PREPARATION AND PROCESSING

4.1 Overview of Data Preparation and Processing Activities

The data preparation and processing for the Continuing Survey of Food Intakes by Individuals and the Diet and Health Knowledge Survey (CSFII/DHKS) began when completed questionnaires arrived at Westat's home office and were receipted into the Forms Tracking System (FTS). The FTS was used to monitor each document as it went through the various steps of data processing.

Completed Intake Questionnaires received a quality review to determine whether they met the minimum criteria for completeness, to identify missing information, and to record errors that could be reported to the interviewer. The food-related items in the Intake Questionnaires were coded by 14 trained food coders using Survey Net, an automated system provided by the Agricultural Research Service, United States Department of Agriculture (ARS, USDA). The non-food items in the Intake Questionnaires and the non-Intake documents [i.e., Screeners, Household Questionnaires, DHKS Questionnaires, Non-interview Report Forms (NIRFs), and Call Record Folders] were coded, key entered, and machine edited using Westat's systems for these processes. Pencils of different colors were used to differentiate each manual processing task (red for coders, purple for verifiers, orange for machine editors, and green for the receipt clerk).

All survey documents were completely processed and the last CSFII/DHKS 1994 data delivery was prepared for transmission to ARS at the end of February 1995 as required by the contract.

4.2 Revisions to Pilot Study Procedures and Materials for the Main Survey

The Pilot Study provided valuable experience that was incorporated into changes in the procedures and materials for the Main Survey. These updates to the Pilot Study materials and systems follow.

- Machine edits were developed to extensively check consistency within and across documents.
- The consistency of demographic information about each sample person (SP) was checked between the FTS, the Screener, the Intakes, and the DHKS Questionnaire.
- The Intake Review performed by coders was expanded and the review form was automated.
- The FTS was revised to reflect the flow of data from the field for the Main Survey, during which the Screener and the Household Questionnaire were routinely receipted separately from the Intake Questionnaire. Other changes were made to streamline the system. The FTS was also revised during the CSFII/DHKS 1994 to remove unclear fields.
- Adjudication reports for double-coded Survey Net entries were expanded to include outputs for foods that had been coded by one coder but were missed or not coded by the second coder.
- A report of Survey Net notepad entries and decisions was enhanced to enable the printing of more than one batch of notepad entries at a time.
- The training program for coders was revised to increase the number of trainer-led presentations and independently completed Survey Net exercises, and to provide feedback from the adjudication reports for all Survey Net exercises. Additionally, the sessions on searching for foods and entering quantities were expanded.

4.3 Receipt and Tracking of Documents

The FTS is an automated system that was developed by Westat for the CSFII/DHKS. The system was developed to monitor the progress of documents through every step of data processing by recording when and by whom each task was completed. All survey documents, including questionnaires, the Call Record Folder, and the NIRF, were tracked through the FTS. Household composition, document disposition, and case ID information from the Field Management System (FMS) was downloaded into the FTS weekly; during the receipt process, the clerk compared the data from the FMS to the hard-copy documents. Discrepancies were resolved by the field director.

Documents were receipted and batched at Westat according to the following procedures.

- The contents of each package were checked against the accompanying transmittal sheet completed by the interviewer.
- Documents were sorted according to document type. Screener and Household Questionnaires were kept together because they contained a great deal of interrelated information. The Intake Questionnaires for a household were also kept together to enhance the efficiency of food coding.
- For non-Intake documents, a General Edit was performed at the time of receipt to determine if the document met the minimum criteria defined by ARS.
- All non-Intake documents that met the requirements of the General Edit were receipted into the FTS. If the questionnaire did not meet the minimum criteria, or if the review revealed that an SP had been selected in error, documents were held for data retrieval or corrective action in the field. (See Section 4.5.2.2 for a discussion of the procedures for retrieving missing information.) Examples of the General Edit forms for non-Intake documents are included as Attachment 4.A.
- Intake documents were receipted and kept together in separate batches. They did not undergo a review to determine whether they met the minimum criteria at the time of receipt.
- The receipt clerk also checked to see if a case had been selected for validation. Documents associated with validation cases were receipted, sorted, and held until all documents relating to the case had been received. Then portions of the documents were photocopied and sent with a validation form to the field supervisors before further processing occurred.
- The FTS created batches (work units for the reviewers and coders) of 10 Intake or 20 non-Intake documents. The system also generated a Batch Control Form, which listed the IDs in the batch and traveled with the documents.

After batching, Intake and non-Intake documents were routed differently through data processing. Through early May, four trained food coders also coded the non-Intake documents. Beginning in mid-May, the non-Intake documents were coded by staff members responsible for coding only non-Intake documents. After coding, the non-Intake documents were verified, keyed, and machine edited. The Intake instruments were assigned to trained food coders, and the coder's ID and the batch number were recorded in the FTS. The food coders first reviewed the questionnaires and then used Survey Net to code the Intakes. After the Intakes had been coded, they were verified, adjudicated, key entered, and machine edited.

The FTS produced daily and weekly reports. The daily report was simply a snapshot of the FTS files, whereas the weekly reports were more thorough. The weekly reports detailed the number and disposition of each document received, the number of documents in each processing step, the status and results of quality control operations (i.e., Survey Net verification), response rates by PSU and income level (non-low or low) and interviewer, and the percentage of Intake Interviews completed on each day of the week. The daily snapshot and the weekly report were transmitted electronically to ARS.

4.4 Recruiting and Training Data Preparation Staff

In January 1994, 16 coders were recruited to review and code the Intake Questionnaires. Applicants went through a multistage recruiting process that included completing a Screener with questions about experience in purchasing and preparing food (a contractual requirement); relevant experience and education; a short exercise on using Survey Net on the computer, selecting food codes, and entering food quantities; and an in-person interview.

Coders began their training by attending 5 days of the in-person field supervisor training session in December 1994. Topics addressed during the 5 days included an introduction to the survey, all of the presentations on the Intake Questionnaire, and the introductory presentations on the non-Intake documents. Coders were also required to complete the interviewer Home Study Guide before attending coder-specific training. The interviewer Home Study Guide provided an introduction to the Food Instruction Booklet (FIB), the main tool the interviewers used to probe for food detail and quantities on the Intake Questionnaires and the main tool the coders used to review the Intakes before coding. Before the in-person coder training began, two of the recruits resigned to accept other job offers.

In a 9-day session beginning on January 11, the 14 food coders were trained at Westat. The training focused on teaching the Survey Net coding system. The coders were also trained to complete the three-stage review of Intake Questionnaires using an automated Intake Review and to code the non-food questions on the Intake Questionnaires. The training agenda is included as Attachment 4.B.

At training, the food coders were given numerous materials that they would need to perform their jobs. These included the coder manual, *General Instructions for Reviewing and Coding Food Intake Questions*, which contained sections on all topics covered in the training and screen-by-screen instructions for the Intake Review and Survey Net coding. The coders were also given ARS's *Food Coding Guidelines*, codebooks for the non-food questions on the Intake Questionnaires, and numerous coder aids, such as laminated copies of the lists of combination codes and definitions and eating occasion codes.

During Survey Net training, the trainer used lectures, demonstrations, a tutorial, and exercises to introduce material to the trainees. Exercises were presented in hard-copy and computerized formats and increased in complexity as the trainees became more comfortable with the Survey Net software. The training approach provided the coders with extensive hands-on practice with Survey Net. All computer-based presentations were facilitated through the use of a data display, which projected the trainer's entries onto a large screen and helped the trainees to keep pace with the presentation. Throughout Survey Net training, the coders received feedback on their exercises. The coders' entries were compared to the correct entries and the trainer reviewed discrepancies on a hard-copy list, identified coding errors, and provided the coders with feedback.

The food coders were also trained to manually code the non-food questions on the Intake Questionnaires. Manual coding included correcting interviewer errors, zero-filling designated fields to be skipped, entering codes for "don't know" and "refused" responses, and translating marginal notes into codes.

Before completing the training and being certified to begin coding, the coders were required to use Survey Net to code a final test set of three Intakes provided by ARS. Coders had to have fewer than five errors on each Intake to satisfactorily complete the test sets. Eleven of the 14 trainees were certified to code on Survey Net after their initial entry of the test Intakes. The three remaining trainees were certified after their second attempt. By January 28, all 14 coders had successfully completed the training and were certified to perform Survey Net coding.

After training and certification, food coders practiced their newly acquired skills by reviewing and coding practice interviews completed by the interviewers. By the beginning of February 1994, the coders were processing Main Survey Intake Questionnaires.

Food coders periodically received refresher training on Survey Net and the Intake Review. Survey Net retraining included searching for foods, entering quantities, and modifying recipes. Intake Review retraining emphasized strategies for improving the efficiency and effectiveness of the review.

Two food coders left the project during the year. One coder left to become a full-time student in June and a second coder was reassigned in September because of productivity problems.

Training materials for non-Intake coder training included the manual *General Instructions for Reviewing and Coding Non-Intake Questions*, codebooks for each non-Intake document, and training exercises. The manual contained an introduction to non-Intake data collection, the data flow, the General Edit, and Westat's coding conventions. The codebooks included file layouts, precodes, special notes to coders, and logics used in machine editing. Training exercises were scripted to incorporate examples of many of the data problems the coders would encounter. The Non-Intake Coder Training Agenda is included as Attachment 4.C.

Four of the 14 food coders were also selected to code non-Intake documents. In a 4-day session beginning on February 10, these coders were trained to code and machine edit the Screener Questionnaire, the Household Questionnaire, the Household Folder, and the NIRF. On March 10, the coders were trained to code the DHKS Questionnaire, the DHKS Folder, and the DHKS NIRF. In mid-May, to expedite the delivery of Intake documents to ARS, all trained food coders were assigned exclusively to Survey Net coding. Four new non-Intake coders were recruited and trained using the original materials and methods. By August, with the backlog of unprocessed documents diminished, only two non-Intake coders were required.

4.5 Processing Intake Questionnaires

4.5.1 Introduction

Within 2 days of an Intake's receipt at Westat, the coders performed an Intake Review. The results of the review were summarized and reported to the field supervisors and the interviewers as needed. If an Intake was missing critical information, data retrieval was conducted in an attempt to obtain the information.

Ten percent of Intakes were verified by having a second coder independently enter the information into Survey Net. The two entries were compared using adjudication reports developed by Westat, and the results were used to provide the coders with feedback. Throughout the year, coder error rates were 0.4 percent. The Survey Net system has a feature that allowed coders to enter comments and questions into a "notepad" file. The coding supervisors reviewed notepad entries for each Intake and provided feedback when necessary. The supervisors also reviewed all unknown foods, foods not available in Survey Net, and recipes that the coders modified.

The non-food questions on the Intake Questionnaires were manually coded, verified by having a second coder check the accuracy of each coded response, key entered using the Tartan data entry system, and machine edited using programs developed with Westat's COED software. Survey Net data, non-food data, and the hard-copy Intake Questionnaires were delivered to ARS weekly.

Figure 4-1 illustrates the data flow and processing steps for Intake data.

4.5.2 Intake Review

4.5.2.1 Introduction to the Review Process

Thorough procedures were developed to monitor the quality of the Intake data and to provide the interviewers with timely feedback. The in-house review process for the Main Survey evolved from the procedures used on the Pilot Study. Whereas a two-stage process was used during the Pilot Study, the review and coding of Intakes were performed concurrently by the same coder during the Main Survey. Also, the review was automated to decrease the time required to complete the review and produce a document that would provide detailed feedback to the field staff and summary information on the quality of each interviewer's work. Exhibit 4-1 shows a completed computerized Intake Review form.

Figure 4-1. Data flow and processing steps for Intake data

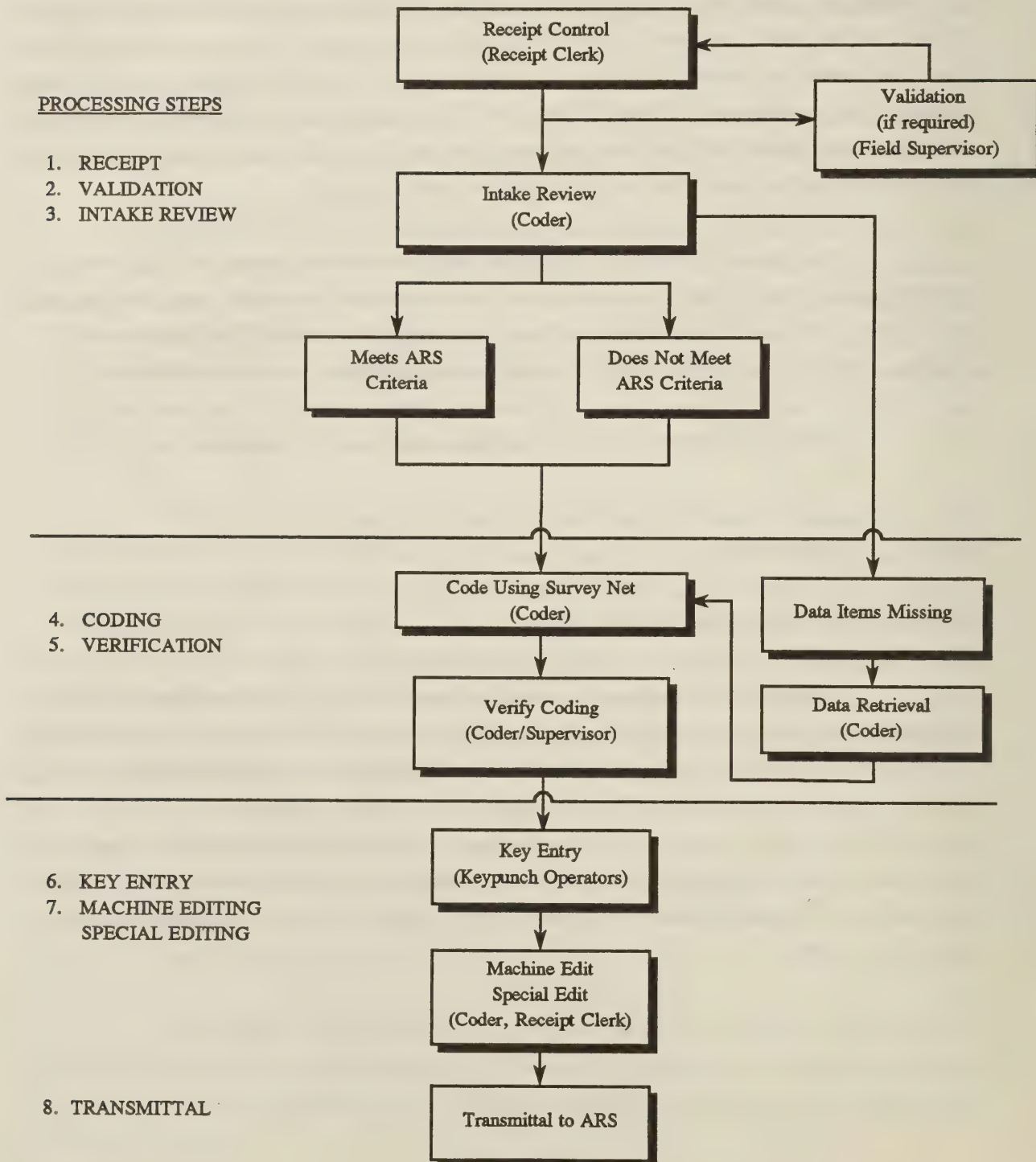


Exhibit 4-1. Screen from the automated Intake Review

INTAKE REVIEW

PAGE NO.: 1

Household+Sp id+Intake(1 or 2): 2071141129 - 02 - 2

PART 1 - INTAKE MINIMUM CRITERIA

Interviewer Initials: KAY

Date of Review: 06DEC1994

Coder/Reviewer ID : 005

Batch Number : 2991

Total Number of Food Items in Food/Drink Column : 14

1. Number of Food Items with NO Description : 0 0 %

2. Number of Food Items with NO Amount : 0 0 %

3. Meals reported by the SP with NO Foods/Amounts? : N

Did Intake meet minimum criteria? : Y

Reason(s) Intake did NOT meet min criteria : / /

PART 2 - DETAILED MISSING FOOD INFORMATION

Line #	Missing Food	Missing Detail
5	Apple	Small, medium or large apple?
6	Bread on pb sandwich	Regular, thick or thin slices?
12	Ice cream	Anything added to ice cream?

GENERAL COMMENTS ABOUT THE INTAKE: It looks as though you used the FIB well for most foods. Good job.

PART 3 - GENERAL INTERVIEWER ERRORS

No editing marks on the Intake -----> :
 Combination is not bracketed -----> :
 Eating occasion is blank -----> :
 Time of eating occasion is blank -----> :
 AM/PM is not circled for time of eating occasion -----> :
 Data Retrieval is incorrectly recorded. -----> :
 Writing is difficult to read -----> :
 Not enough space used to record descriptions -----> :
 Quick List - No underline after first pass -----> :
 Quick List - Items are not transferred to Food/Drink column --> :
 Reference to another food item is unclear -----> :
 Nothing Else - is not written at the end of the Intake -----> :
 Skip pattern(s) incorrect for Q: -----> :
 Interviewer observation incomplete. -----> :

Other:

The review of each Intake included three parts:

1. An edit to determine whether the Intake met ARS's minimum criteria for completeness;
2. A line-by-line review of the description and quantities collected about each reported food; and
3. A check for general interviewer errors in recording.

4.5.2.2 Minimum Criteria for Intakes

To be considered complete, an Intake had to include the following:

1. Sample descriptive data (i.e., segment identification and housing unit identifiers);
2. The SP's first name or other suitable designation and his or her person identification number;
3. The SP's age or date of birth;
4. The date and day of the week on which the Intake interview was conducted;
5. At least one food or beverage for each eating occasion reported by the SP [i.e., if the food record indicated an eating occasion but did not list the food(s) or beverage(s) consumed, the Intake would not be considered complete];
6. Sufficient detail to permit coding for at least 75 percent of the reported foods; and
7. Information on quantity consumed for at least 85 percent of the reported foods.

Of the 10,912 CSFII 1994 Intake Questionnaires delivered to ARS, only 12 did not meet the minimum criteria. Of these, one Intake Questionnaire was considered incomplete because more than 25 percent of the reported foods were described in inadequate detail. Two Intakes were unacceptable because more than 15 percent of the reported food items were missing amounts consumed. Nine Intake Questionnaires did not meet the minimum criteria because no food(s) or beverage(s) was reported for an eating occasion.

Initially, approximately 100 Intakes were determined not to meet minimum criteria when they were reviewed at Westat. Because Intake Questionnaires are reviewed within 2 days of receipt, data retrieval from the interviewer or the SP was possible while the interview was still relatively fresh in their minds. For example, if an Intake was missing a description of a meal eaten away from home by a young child, the coder called the daycare or other source identified on the Household Folder Call Record. Or, if the quantity and/or descriptive information was missing, the coder called the SP in an attempt to retrieve the information. Although in-house data retrieval efforts were largely successful, 12 Intakes still did not meet the minimum criteria after data retrieval.¹ The main reasons were as follows:

1. Older SPs could not remember what they ate;
2. The information could not be obtained from the daycare provider or school (i.e., the parent refused to give consent to call the daycare or school, the daycare or school refused to provide the information, the SP or daycare had no telephone, or the daycare or school no longer had the meal information); and
3. The SP had moved and could not be located.

Table 4-1 illustrates the demographics of SPs whose questionnaires did not meet the minimum criteria. The ability of children aged 6 to 11 years to report for themselves in the presence of a parent was of particular interest to ARS because the data for this age group were collected by proxy in previous surveys. During the CSFII 1994, only one questionnaire for a 6- to 11-year-old SP failed to meet the minimum criteria.

¹ Twelve additional Day 1 Intake questionnaires did not meet minimum criteria. With the agreement of both Westat and ARS, complete Day 2 Intake data provided by these 12 SPs were substituted for the incomplete Day 1 data and the Day 1 Intake was considered complete and meeting minimum criteria. The Day 2 Intake received a unique nonresponse disposition code (disposition code F25).

Table 4-1. Demographics of SPs whose Day 1 and Day 2 Intake Questionnaires did not meet minimum criteria (n = 12)

Demographics	Day 1	Day 2	Total	
			N	%
Age				
< 6 years	2	5	7	58.4
6-11 years	0	1	1	8.3
> 11 years	2	2	4	33.3
Total	4	8	12	100.0
Sex				
Male	4	7	11	91.7
Female	0	1	1	8.3
Total	4	8	12	100.0

4.5.2.3 Missing Detail for Food Items

Interviewers were trained to use the probes in the FIB to obtain the necessary detail for each reported food. The probes included very specific information about the food, such as the preparation method, quantity, type of fat used, brand, dilution, and whether or not salt was added. If the SP could not answer a probe, the interviewer was required to document the response as a "don't know" (D.K.) on the Intake. The coder used the FIB to perform a line-by-line review of each reported food item. On the Review Form, the coder noted the line number, food type, and any missing probes. Exhibit 4-2 is a page on cooked cereals from the FIB to illustrate the detailed probes required when reporting foods.

By reviewing the results of the first quarter of Intakes, Westat attempted to develop a measure of quality on the level of missing detail that still permitted adequate coding of most foods using the most specific code and quantity available in Survey Net. The conclusion was that 20 percent or less missing detail still allowed for high-quality coding.

Exhibit 4-3 is an example of an Intake with 20 percent missing detail. On line 5, the amount of apple consumed is reported as "1," but the FIB probe for amount is "Was it small, medium, or large?" Although "1 apple" can be coded in Survey Net, the interviewer should have asked the probe specified in the FIB. If the SP could not answer the FIB probe, the interviewer should have

CEREALS, PASTA, RICE




Food/Drink Category	Q4. Description of Food/Drink	Q5. How much of this (FOOD) did you actually (eat/drink)?
<p>Cooked Cereals</p> <div style="display: flex; align-items: center; margin-top: 100px;">    </div>	<p>KIND: What kind was it? (Was it oatmeal, cream of wheat, cornmeal mush, grits, kasha, whole wheat...?)</p> <p>BRAND: What was the brand name?</p> <p>TYPE: Was it regular-cooking, instant, or quick? If instant – Was it plain or flavored?</p> <p>PREPARATION: How was it prepared? Liquid: Was it made with milk, water...? If prepared with milk – Was the milk whole, lowfat (1%, 2%), skim...?</p> <p>Salt: Was salt used in cooking or preparing the (FOOD)? (DK SALT, NO SALT, SALT USED)</p> <p>Fat: Was any kind of fat or oil used in cooking or preparing the (FOOD)? (DK FAT, NO FAT, FAT USED) If fat used – What kind?</p> <p>Other ingredients: Was anything else added in cooking? If yes – What was it?</p> <p>ADDITIONS: Did you add anything to the (FOOD)? RECORD EACH ADDITION ON A SEPARATE LINE IN THE FOOD/DRINK COLUMN, COMPLETE Q5 FOR THE ORIGINAL FOOD, AND THEN ASK Q4 AND Q5 FOR EACH ADDITION. Examples: <i>Milk or cream, pages 6, 8</i> <i>Sugar or sugar substitute, page 20</i> <i>Fruit, page 31</i> <i>Butter, margarine, page 77</i></p>	<p>IF VOLUME: How much? (Tsp, Tbsp, Cup) (SPECIFY DRY OR COOKED)</p> <p>IF WEIGHT: What was the package weight and portion eaten? (DRY ONLY) (Example: 1/2 of 3/4 WO package)</p>

Exhibit 4-3. Intake with 20 percent missing detail

Food/Drink and Additions	Description of Food/Drink and Ingredient Amount	How much of this (FOOD) did you actually eat/drink?	Missing Detail
1 coffee	ground, reg	1 C	
2 milk	1%, liquid	1 TBSP	
3 Toast	white bread, presliced, comm", reg, toasted	2 reg sl	
4 Butter	Land O'Lakes, salted stick, reg	1 TBSP	
5 Apple	fresh, no adds	1	Apple -- Small, medium or large apple?
6 PB+Jelly Sandwich	Bread: whole wheat, 100% comm'l, reg (2 sl) PB: reg 2 TBSP	1 sandwich	Bread on sandwich -- Regular, thick or thin slices?
7	Jelly: Jelly, reg 1 TBSP	↓	
8 Coke	Cola, Coke, decaf, Diet	12 FO Can	
9 Mac + Cheese	Dry mix, dry cheese, 2% milk salt used, fat used, Shedd's spread, NO HDDS	1 1/2 C	
10 Green Beans	cooked from fresh, no sauce/mo salt used, fat used, Shedd's spread, NO HDDS	1 C	
11 Ice Cream	ice cream, Breyer's, butter pecan, bulk	1/2 C	Ice Cream -- Anything added to ice cream?
12 Tea	leaf reg, no sweetner Hipton's	1 C	
13 lemon	fresh, no adds	1/8 med lemon	
14 Crackers	Saltines reg, Nabisco	4 square Crackers	
15 Cheese	American, processed reg, presliced Kraft	2 sl	

written "D.K. size," to indicate that the SP was unable to answer the probe. This notation was the only means by which the reviewer could verify that the interviewer had asked the probe. On line 6, the amount of bread in the sandwich is documented as "2 sl." The probe in the FIB for the amount asks for the number and size of the slices. Again, the amount can be coded but not to a specific enough level. On line 12, the FIB requires a probe for additions to ice cream. If the SP had reported no additions to the ice cream, the interviewer should have written "no adds." Note that the food and quantity descriptions in Survey Net have varying levels of specificity. If a food is not completely described, the coder can assign a default code or amount that represents the value of only the information actually reported.

The interviewers demonstrated consistent improvement in the quality of Intake data collected. Figure 4-2 shows that the percentage of interviewers with less than 20 percent missing detail on their Intakes has increased from 50 percent in Quarter 1 to 78 percent in Quarter 4.

Also, as shown in Figure 4-3, the average percentage of missing detail on the Intakes has declined consistently each quarter, from 21 percent in Quarter 1 to 19 percent in Quarter 2, 18 percent in Quarter 3, and only 14 percent in Quarter 4. The two most common missing details in the CSFII 1994 were portion size and additions to food.

4.5.2.4 General Interviewer Errors

In addition to providing an insufficient description of reported foods, interviewers could make other types of errors. To accommodate the documentation of these other errors, the Review Form listed the 14 most common types of mistakes discovered on the Pilot Study.

A way of looking at interviewer performance is to examine the average number of errors per Intake. The results shown in Figure 4-4 indicate that the average number of errors per Intake declined from 1.6 in Quarter 1 to 1.5, 1.4, and 1.1 in Quarters 2, 3, and 4, respectively. The three most common mistakes made by the interviewers on the CSFII 1994 are described below. These three errors account for 64 percent of the total errors made during the CSFII/DHKS 1994.

1. **No edit.** During the review, it was apparent that the interviewer failed to carefully edit the completed Intake. This increases the likelihood of errors.

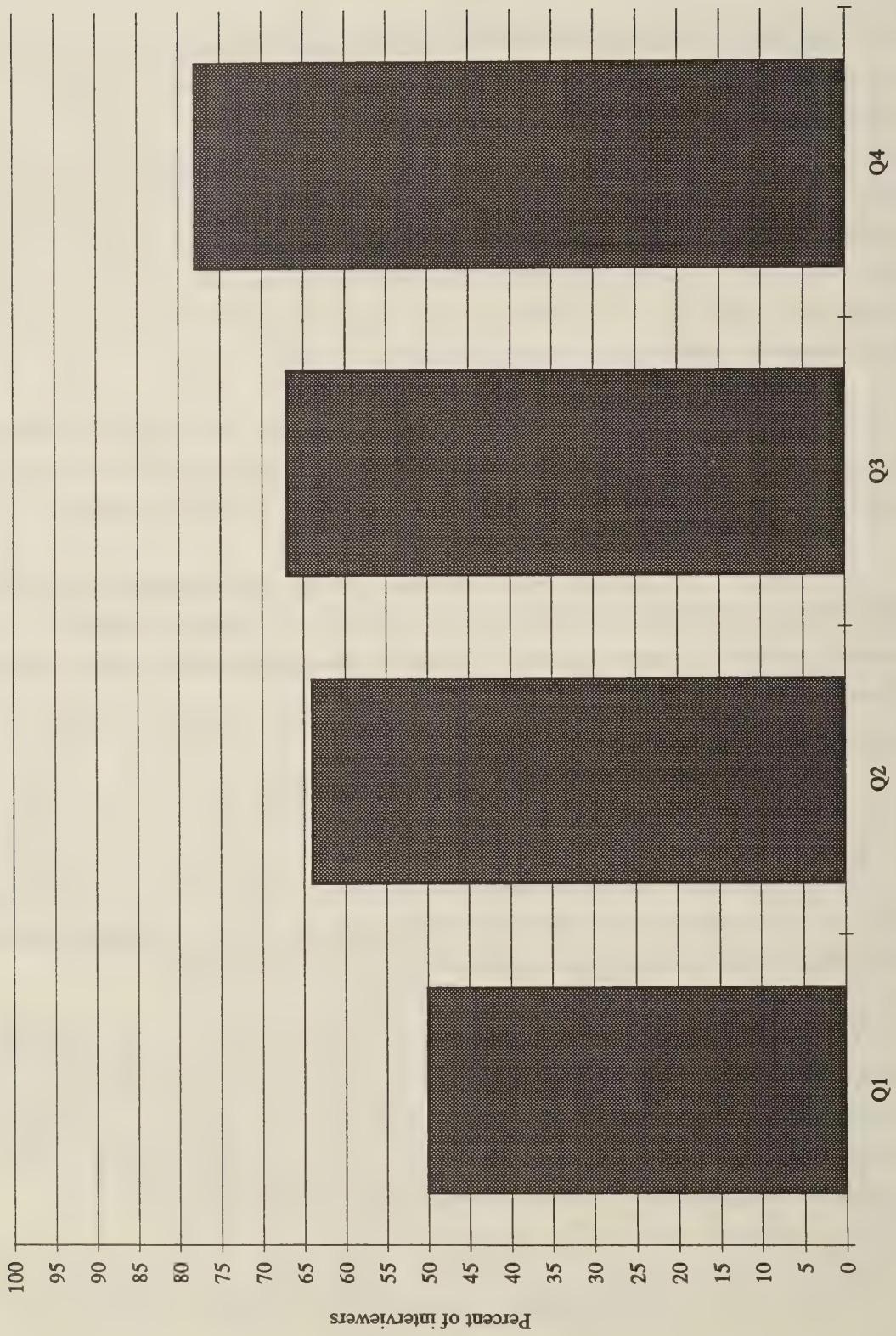


Figure 4-2. Percent of interviewers with less than 20 percent missing food detail, across quarters

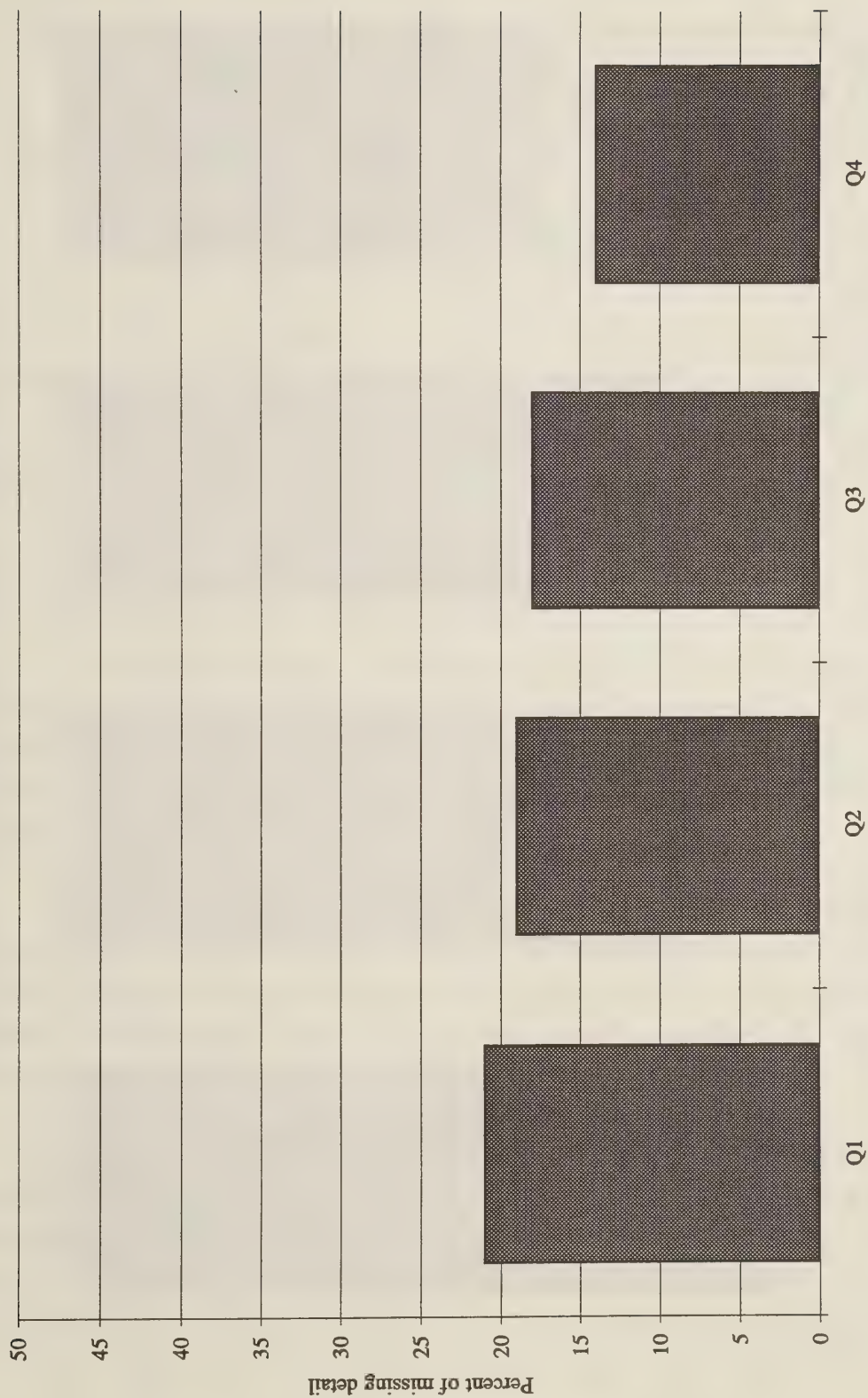


Figure 4-3. Percent of missing food detail on Intake Questionnaires, across quarters

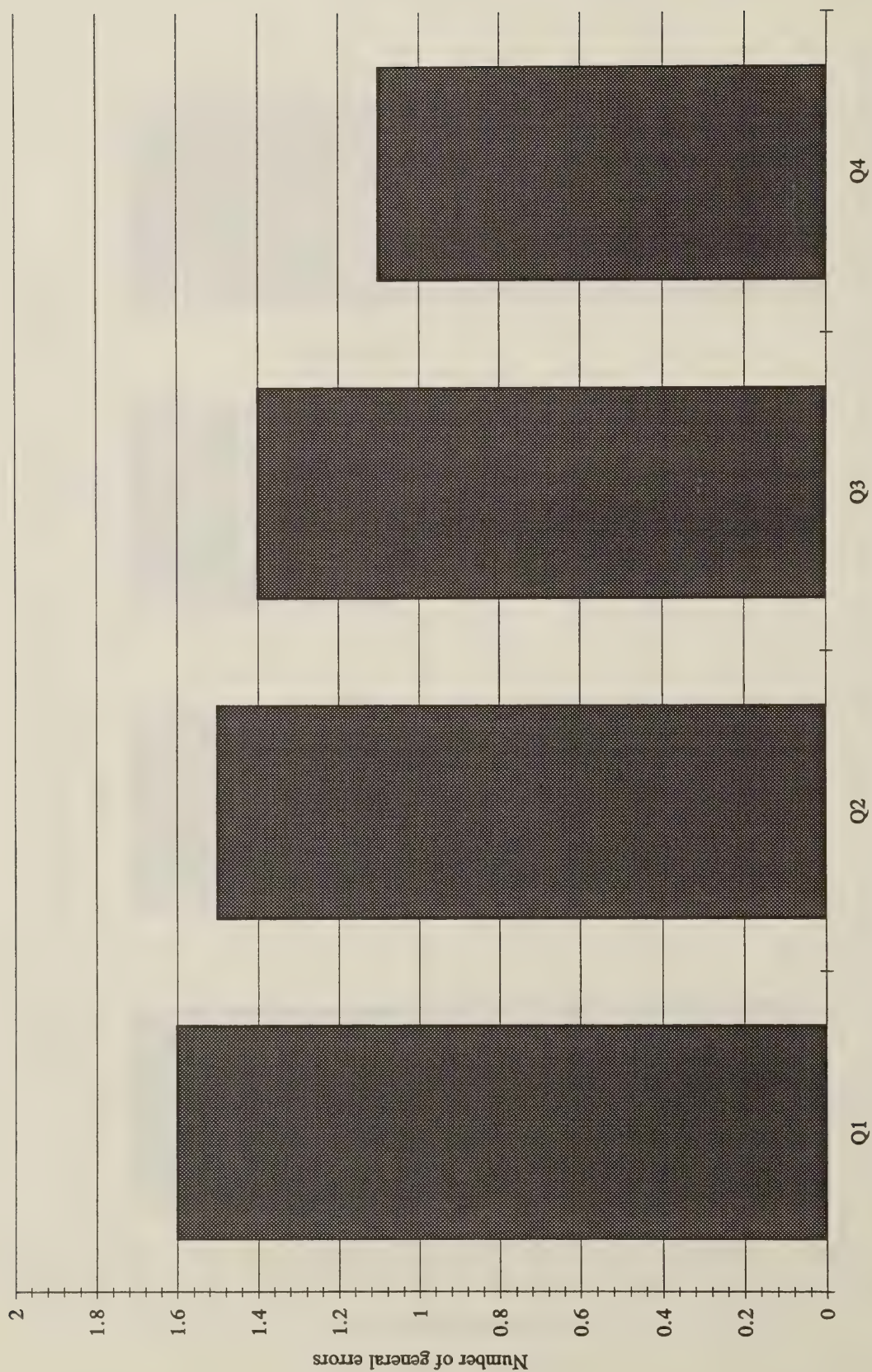


Figure 4-4. Average number of general errors per Intake, across quarters

2. **Combination not bracketed.** The interviewers were to bracket foods eaten as a combination. For example, if the interviewer reports 1 cup of coffee on the first line of the Intake Questionnaire and 1 tablespoon of milk on the second, but does not bracket these food items, a coder will not know whether to code them separately or as a combination. This results in a loss of some information about foods consumed together.
3. **am/pm not recorded.** Interviewers were required to record the time that the food was consumed, and they frequently failed to note whether it was am or pm.

As Figure 4-5 shows, the number of Intakes affected by the three most common interviewer errors decreased throughout the year. The largest reduction was in the "no edit" error type, which affected 3 of every 10 Intakes in Quarter 1 but less than 1 of every 10 Intakes in Quarter 4.

4.5.2.5 Feedback to the Field Staff

During the first quarter of data collection, the results of the review were sent to the field supervisors and the interviewers for every completed Intake Questionnaire. If an identified problem required immediate attention, an E-mail was sent to the supervisor and the interviewer. A photocopy of the completed questionnaire was also sent to the interviewer if it was necessary to illustrate the error.

After the first quarter of data collection, review forms were sent to the interviewer if the level of missing detail exceeded 20 percent and/or if the interviewer made three or more general errors. When new interviewers joined the survey, they received the review forms for all of their Intakes for their first quarter of work. If an interviewer's work was satisfactory, the review forms for subsequent quarters were printed out according to the guidelines specified above.

The automated review system also produced a series of reports by interviewer that helped Westat to monitor the quality of each interviewer's work. One type of report showed the percentage of missing detail across all Intakes completed by an interviewer (see Attachment 4.D). The percentage of missing detail was calculated on the number of foods missing any detail, divided by the number of foods reported for an Intake. A summary report by interviewer was produced each week and was

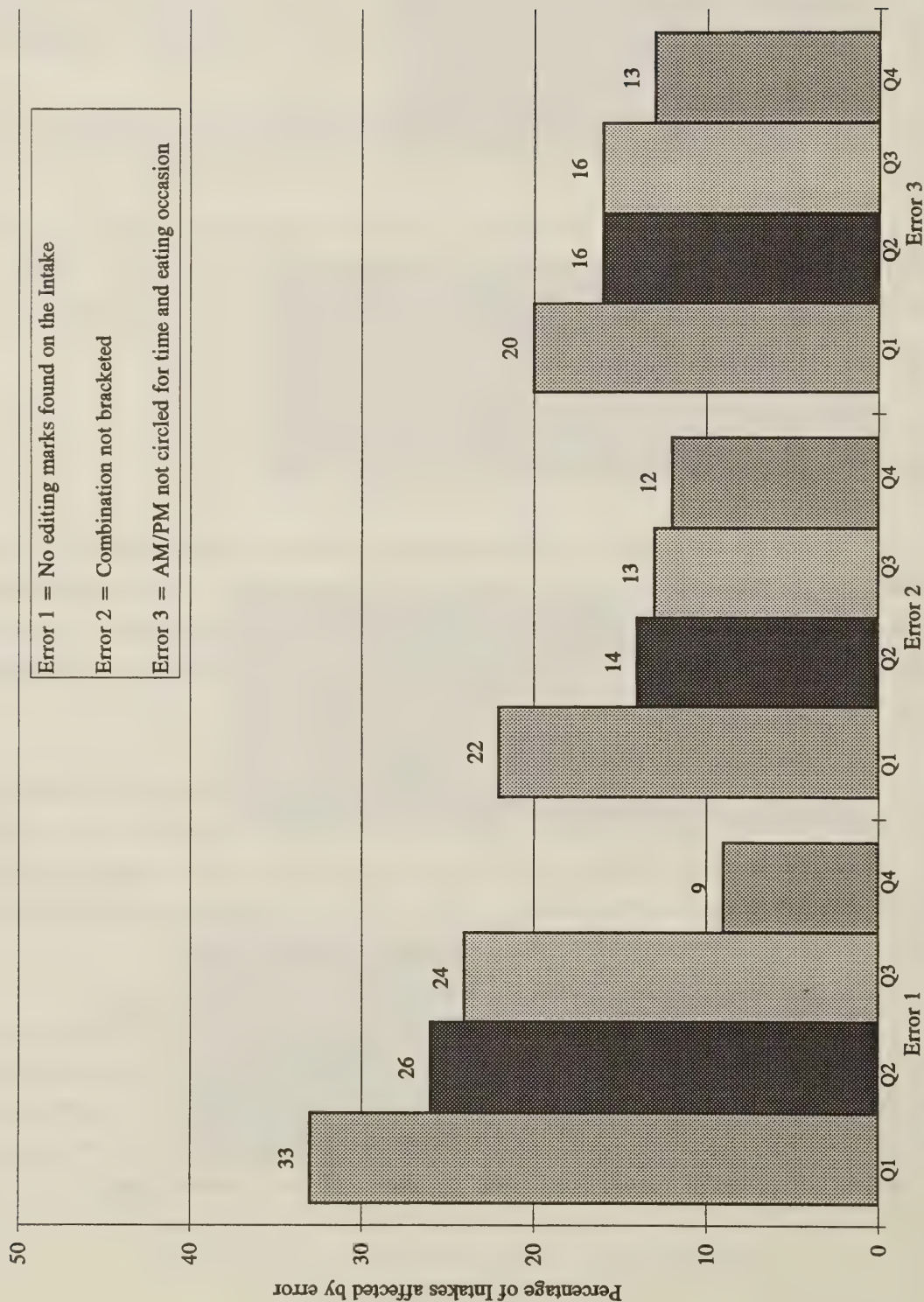


Figure 4-5. Type of error as a percentage of total Intakes, by quarter

reviewed by the field director before being sent to the supervisors. Also, a summary report showing general errors by interviewer was produced each month during Quarter 4 (see Attachment 4.E). The summary reports helped to indicate when interviewer retraining was needed and to identify issues requiring discussion in a newsletter or a memo to the interviewers.

4.5.3 Survey Net Coding of Intakes

4.5.3.1 Introduction

Food coding was accomplished using the Survey Net system. The system had many advantages over the hard-copy USDA Code Manual that was used on previous ARS food consumption surveys. The system included the following major features:

- Automated access to a very large food database and its component parts, including food and gram-weight descriptions and a recipe file;
- Searching capabilities that locate suitable food codes quickly and easily;
- Fast and accurate automated conversion of quantity information to gram-weight equivalents;
- The flexibility to change ingredients in standard recipes;
- A "copy" feature that allowed coders to copy foods within an Intake (for foods that an SP ate more than once) or between Intakes (for foods that were eaten by more than one SP in a household);
- The "unknown" feature, which allowed coders to enter food descriptions not available in the database and enabled other coders to use these descriptions; and
- Documentation of the decision-making process through a notepad feature, which enhanced communication between coders, supervisors, and ARS.

ARS updated Survey Net several times during the CSFII 1994 to add system enhancements, incorporate new food information, and resolve unknown foods and recipe modifications. During the course of the year, three system enhancements were made to Survey Net to improve the efficiency and effectiveness of the coding operation. The food database was upgraded six times to incorporate additions such as new foods, weights, and nutrient information. Fifty-two weekly

food database updates were made that provided resolution about unknown foods and recipe modifications.

The system enhancements and database upgrades were accomplished during the coders' lunch time and took less than a half-hour. The weekly updates were performed after the weekly delivery to ARS and required approximately a half-hour. The coders could continue processing Intakes immediately after the updates, and Intake processing continued without interruption. The system's flexibility and the ease with which it could be updated were significant benefits to Westat.

4.5.3.2 Number of Food Items Per Intake

There are three different measures collected in the CSFII 1994-96 concerning the number of food items captured on an Intake Questionnaire:

1. The number of foods reported "above the line" on the Quick List,
2. The number of foods reported in the Food/Drink and Additions column, and
3. The number of foods coded in Survey Net.

Measures 1 and 2 above are based on what is reported by the SP. The foods "above the line" on the Quick List represent what the SPs reported on the first pass through the Intake. In the first pass, the interviewer asked the SPs to report a list of all foods eaten the previous day using any recall strategy they desire. The interviewer then got a more detailed list of foods by probing for additions, such as cream in coffee, giving the SPs an opportunity to recall food items they initially forgot. In the third and final pass, the interviewer reviewed with the SPs the list of foods reported to elicit more foods and eating occasions not previously mentioned. The number of foods reported in the Food/Drink and Additions column includes foods from the Quick List as well as those reported during more detailed probing in the second and third passes through the Intake.

The third measure, the number of foods coded in Survey Net, varies somewhat from what the SPs report. Some foods reported as a single item are coded as more than one food in Survey Net. For example, a sandwich may be reported as a single food in the Food/Drink and Additions column of the Intake; however, depending on the amount of detailed information obtained about the sandwich

(i.e., type and amount of bread and filling), the sandwich may be coded with a single sandwich code or with separate codes for each ingredient.

The average numbers of reported and coded foods per Intake are listed in Table 4-2.

Table 4-2. Average number of food items per Intake

Intake	Reported on Quick List	Reported in Food/Drink and Additions Column	Coded in Survey Net
Day 1	9.4	12.2	14.0
Day 2	9.3	11.8	13.5

4.5.3.3 Coding and Processing Times for Intakes

As shown in Table 4-3, Westat began the CSFII/DHKS contract with an estimate of 56 minutes to review and code an Intake Questionnaire and 17 minutes to perform postcoding activities, including Survey Net notepad review, verification and adjudication, and machine editing. Because Survey Net was a newly developed system that had not been used in full-scale production before the start of the CSFII 1994, ARS provided the estimated time based on its own testing experience.

In the Pilot Study, the average time required to review and code an Intake was 71 minutes. There was no estimate for postcoding activities because the coding supervisor had performed these activities along with her other responsibilities. In preparing the staffing plan for the Main Survey, Westat used the Pilot Study experience of 71 minutes to review and code an Intake, plus the original estimate of 17 minutes per Intake for postcoding activities. Although it was estimated that 300 hours per week of coder time would be needed to process the Intakes on schedule, Westat trained a staff that would provide 400 hours. This conservative estimate was intended to ensure that Westat would be able to review the Intakes within 2 days and deliver the data to ARS within 30 days of receipt at Westat, as required by ARS.

Table 4-3. Average number of minutes to process Intake Questionnaires

	Original contract estimate	Pilot Study	CSFII 1994	
			Intakes in first 4 months	All Intakes
Review and coding	56	71	88	59
Postcoding*	17	—†	23	30
Total time	73	—	111	89

* Includes notepad review, verification and adjudication, and machine editing.

† Because the scope of the Pilot Study was small, the coding supervisor completed these tasks along with other responsibilities. Therefore, it is not possible to provide a separate estimate for postcoding activities.

As Table 4-3 indicates, in the first 4 months of processing, the average times to review and code an Intake (88 minutes) and to perform postcoding activities (23 minutes) were considerably higher than the estimates used to develop the staffing plan. Beginning in late March, the average number of days required to process an Intake after receipt at Westat exceeded 30 days. By early May, and after having lost one coder, the backlog of unprocessed Intake Questionnaires was considerable.

At that time, Westat and ARS developed a plan to expedite processing and reduce the backlog. The plan included having a separate supervisor and coders to process non-Intake documents, which would allow trained food coders to work exclusively on Intakes. In addition, Westat planned to increase the time spent with each coder to discuss productivity goals and ways to improve performance. The coding supervisor also attempted to answer all coding questions as quickly as possible. ARS agreed to observe the coding operation and to recommend ways of improving the efficiency of Survey Net.

On the basis of these observations, ARS made several helpful suggestions. The major recommendation was that Westat retrain the coders to perform Survey Net word searches. Additional recommendations included streamlining Survey Net notepad entry procedures, providing refresher training on calculations, and re-evaluating the day-to-day logistics of the coding operation, such as the assignment of coding batches, coder seating arrangements, the use of aids such as rulers, changes in the order of case review and entry, and variations in the tasks performed during the day.

Figure 4-6 shows that the average coder times for reviewing and coding Intakes improved considerably in June. As shown in Figure 4-7, in June the average Intake processing time also dropped below 30 days from receipt at Westat. These improvements were attributed to the individual meetings with coders; the presence of ARS, which heightened the coders' awareness of the importance of increasing production; ARS's and Westat's suggestions for increasing coding efficiency; the coders' continually growing experience; and an increase in the number of supervisory staff.

Westat and ARS cooperative efforts improved the processing time considerably. As shown in Table 4-3, the average time to review and code all Intakes in the CSFII 1994 was 59 minutes and the postcoding time averaged 30 minutes. The postcoding time increased from the time experienced in the first 4 months because of the addition of special machine edits. Some of the additional edits were to ensure consistency across documents; to verify that the correct household members were sampled; to check age and sex across all documents; and to check age, sex, and Screener line letters for household members listed in the Household Questionnaire grids.

As Figure 4-7 shows, Westat continued to meet the turnaround time for processing Intakes from June through most of November 1994. In the last week of November, the number of available coding hours decreased because one coder was released and others reduced their hours during the holiday season. In addition, the number of Intake Questionnaires received at Westat increased because interviewers were working hard to complete their assignments before the end of the year. These circumstances resulted in a backlog of Intakes and a turnaround time of more than 30 days between receipt and delivery to ARS. Throughout this period, however, Intakes were reviewed within 2 days of receipt at Westat.

In January 1995, the coders were asked to work additional hours, and Westat trained and certified another three food coders. By mid-February 1995, the time required to process Intakes was again averaging no more than 30 days from receipt to delivery.

Table 4-4 shows the average number of calendar days to move Intake Questionnaires through each processing step and the overall processing time, which is the average number of days between an Intake's receipt at Westat and its transmission to ARS, including time elapsed for all processing steps. As a result of the circumstances described above, the time between Intake receipt and delivery to ARS averaged 33 days for the CSFII 1994. The contractual requirement to process and

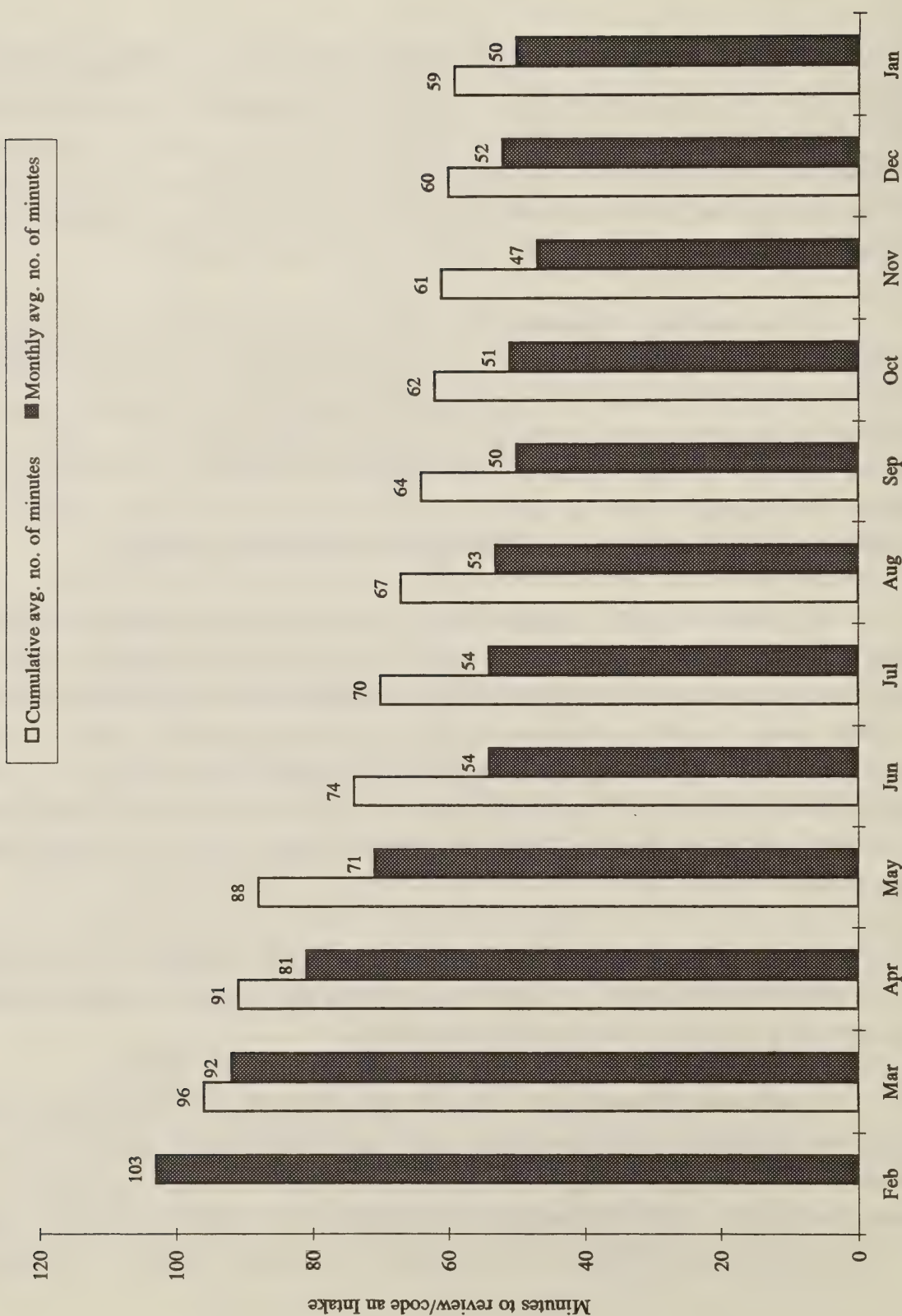


Figure 4-6. Code times for reviewing and coding Intakes

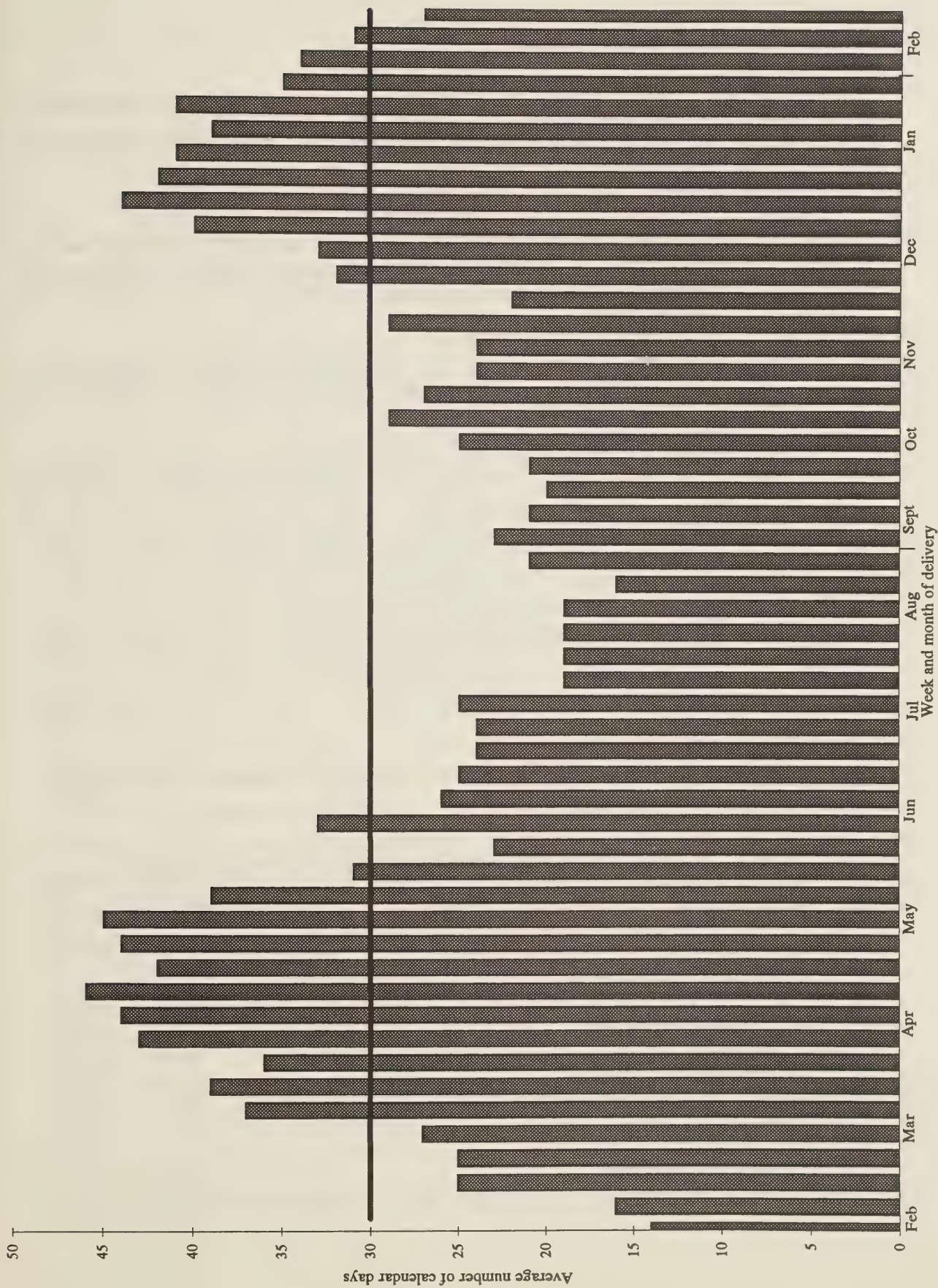


Figure 4-7. Average number of calendar days to process intakes, by week and month of delivery

transmit all 1994 data by February 28, 1995, was met. However, at the request of ARS, the final delivery was postponed 5 weeks because of the ARS office relocation. The processing steps shown in this table are described briefly below.

- **Reviewing and Survey Net entry.** Documents were reviewed to ensure that they met ARS's minimum criteria, and field staff feedback and entries were made into Survey Net. Non-food sections of the Intake Questionnaires were prepared for production keying.
- **Verification and double entry.** For 10 percent of the Intakes, a second coder re-entered the intake data into Survey Net and reviewed the manually coded portions of the document.
- **Survey Net adjudication.** The supervisor and senior coders reviewed a report comparing the two sets of Survey Net entries, corrected entries if necessary, and tabulated the number of coder errors. In addition, the supervisor reviewed 100 percent of the Intakes in Survey Net for notepad entries, newly modified recipes, and unknown foods. (Attachment 4.F contains the shell of the Survey Net adjudication report.)
- **Data entry.** Non-food data on the Intakes were keyed in a production data entry environment.
- **Machine edit.** Non-food data on the Intakes were cleaned with machine-editing programs.
- **Transmittal to ARS.** Data were electronically transmitted to ARS once a week.

Table 4-4. Average elapsed time (days) for processing Day 1 and Day 2 Intakes

Processing step	Days to process
Reviewing and Survey Net entry	12
Verification and double entry	3
Survey Net adjudication	6
Data entry	5
Machine edit	5
Transmittal to ARS	2
Overall processing time	33

4.5.3.4 Quality Control of Survey Net Coding

To verify food coding, 10 percent of the coded Intakes were re-entered into Survey Net by a second coder. A report comparing the two versions was used by the coding supervisor to adjudicate the discrepancies. The results of the adjudication process were entered into the FTS, and reports of error rates by coder were generated.

Two separate error rates were calculated for the Survey Net entries: an error rate for the food data and another for the cover sheet data (information such as SP identification number and age, interviewer name, and date of interview). Both error rates were calculated by dividing the number of fields with erroneous entries by the total number of fields. (Definitions of the fields used to determine the error rates appear in Attachment 4.G.)

As shown in Table 4-5, the error rates were extremely low, with Intake cover sheet errors and Survey Net coding errors averaging 0.3 percent and 0.4 percent, respectively. Discrepancy reports and error rates were regularly reviewed with individual coders and at biweekly meetings where all questions and problems were discussed. All notepad entries, modified recipes, and unknown food entries were also reviewed and corrected by the supervisor.

ARS reviewed all Intakes with notepad entries, unknown foods or weights, and recipe modifications. All entries were reviewed on 10 percent of the Intakes. ARS provided regular written feedback to the data preparation manager. The feedback forms from ARS contained comments on coder errors for each batch of Intakes reviewed. The batches were identified by coder ID, and coder-specific comments were given to the appropriate coder for reference. The sets of comments were compiled in a notebook for review by all coders. Comments from ARS's feedback forms were often a source of agenda items for the coder meetings, which ARS attended periodically throughout the year.

Table 4-5. Survey Net coder error rates

Intake	Coder error rate (% of fields with errors)	
	Cover sheet data	Food data
Day 1	0.3	0.4
Day 2	0.3	0.4
Total	0.3	0.4

4.6 Processing Non-Intake Documents

4.6.1 Processing Steps

Non-Intake documents (the Screener, Household Questionnaire, DHKS Questionnaire, Household Folder, NIRF, DHKS Folder, and DHKS NIRF) followed a slightly different processing path than Intake documents. Figure 4-8 shows the data flow and processing steps for non-Intake data. At receipt, non-Intake documents underwent a General Edit to determine whether the document met ARS's minimum criteria for completeness. The document was then either entered into the FTS (if it satisfied the minimum criteria) or held for problem resolution (if it did not meet the criteria).

Reviewed and receipted documents that were flagged for validation were photocopied and sent to the field supervisors, who conducted the validation interviews. Documents proceeded to manual coding, and 10 percent underwent coding verification. Coded documents were then sent to Westat's data entry shop for key entry. Keyed data were machine edited until they were completely cleaned and ready for delivery to ARS.

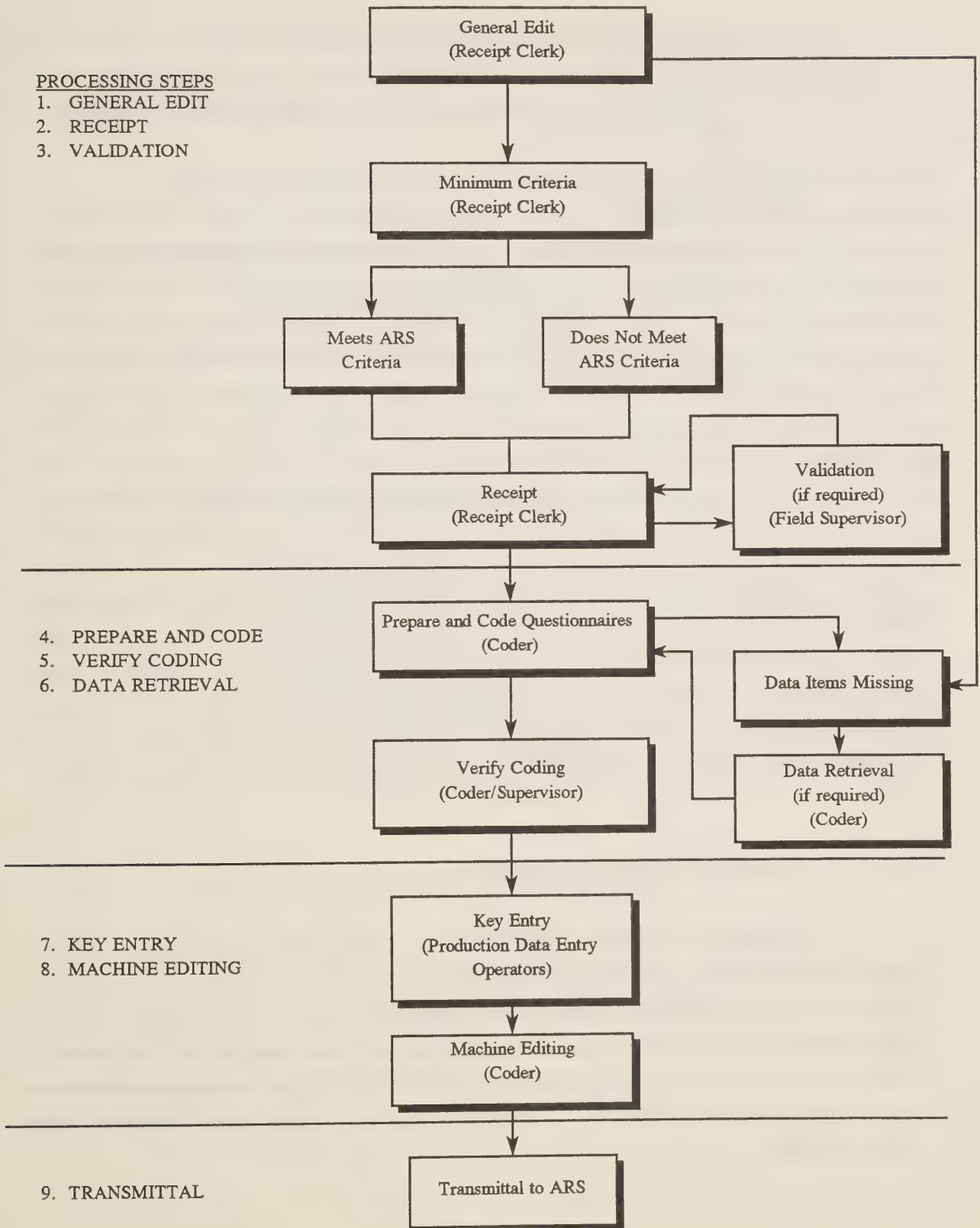
4.6.2 Review of Non-Intake Documents

The General Edit determined whether a non-Intake document met the minimum criteria established by ARS. To be considered complete, each document had to include the following information:

Screener/Household Questionnaire

1. Sample descriptive data (i.e., segment identification and housing unit identifiers);
2. For participating households, income information from the Screener (if necessary);
3. Complete information on the household enumeration;
4. The date of the interview;

Figure 4-8. Data flow and processing steps for non-Intake data



5. A response to the Screener question concerning the number of people in the household; and
6. A sufficient level of detail to permit the coding of at least 85 percent of the appropriate questions.

DHKS Questionnaire

1. Sample descriptive data (i.e., segment identification and housing unit identifiers);
2. The SP's first name or another suitable designation; and
3. A sufficient level of detail to permit the coding of at least 85 percent of the appropriate questions.

Household and DHKS Folders

1. The results, date, and time of each contact attempt (including the interview date and time).

The General Edit of the Screener also included a review of whether the SP was selected properly. If an SP had been selected in error, the field supervisor and the interviewer were notified by E-mail and corrective action was taken if possible. If the Screener failed to meet the minimum criteria, a coder attempted data retrieval with the interviewer. Approximately 2.5 percent of all non-Intake documents required data retrieval. Ninety-eight percent of the data retrieval attempts for those documents were successful. The General Edit forms are included in Attachment 4.A.

4.6.3 Processing of Non-Intake Documents

Processing of non-Intake documents included manual coding and data entry in Westat's production data entry shop. Manual coding involved reviewing interviewer entries in the completed documents and preparing them for data entry. This coding included correcting interviewer errors, zero-filling, designating fields to be skipped, entering codes for "don't know" and "refused" responses, and translating marginal notes into codes. Ten percent of the manual coding of non-Intake documents was verified through dependent review (i.e., by having a second coder visually review the manual coding and identify errors).

The non-Intake documents were then key entered using programs developed with the Tartan system of data entry hardware and software. Data entry into the Tartan system was 100 percent verified through a second entry by a different operator.

After the non-Intake items had been entered, the data were machine edited using programs developed with COED, a Westat software system for cleaning survey data. COED was first used to create a codebook that included the file layouts, acceptable codes for each field, skip pattern specifications, and special editing instructions for use in manual coding. The source code for the codebook was then used to generate machine-editing programs, which verified that keyed data were within the acceptable ranges for a particular field and that skip patterns had been followed correctly. An extensive set of special programs were also written to check the relationships between the FTS and COED data and between COED data sets (for the non-Intake documents) or between the FTS and Survey Net data (for the Intake documents). For example, a program was written to check that the FTS disposition code for each document matched what was in the COED records. An additional check compared information in the Household Questionnaire and the Screener to ensure that individuals eligible for school breakfast and lunch programs were 5 to 18 years old. When discrepant data had been resolved, the data were delivered to ARS. Non-Intake data were electronically transmitted to ARS once a week.

The quality of non-Intake coding improved throughout the survey year. Verifiers and machine editors gave the coders direct feedback on their errors. In addition, regular coder meetings were held to discuss coding decisions, code changes, and feedback from ARS's review of the data.

4.6.4 Coding and Processing Times for Non-Intake Documents

Coders documented the number of hours they worked each day and the number of non-Intake documents they reviewed and coded. At the beginning of the survey year, the coding of a non-Intake document required an average of 7 minutes. The processing time continued to decline, and by October, the average time to review and code a non-Intake document was 3 minutes. The non-Intake documents were delivered to ARS within 30 days of their receipt at Westat.

Table 4-6 shows that the average number of calendar days required to move the non-Intake documents through all processing steps ranged from 24 to 27 days. The processing steps shown in this table are described briefly below.

- **Coding.** Coding consisted of manually writing into the questionnaire or form the codes or data that were to be key entered.
- **Coding verification.** Verification was the process of coders dependently reviewing, correcting, and noting errors in each other's work. (Adjudication is not required with dependent verification.)
- **Data entry.** Data were keyed in a production data entry environment.
- **Machine edit.** Keyed data were cleaned with separate machine-editing programs.
- **Transmittal to ARS.** Data were transmitted electronically to ARS once a week. Hard-copy documents matched to the electronic data were delivered to ARS on the same day.

Table 4-6. Average elapsed time (days) for processing Screener, Household Questionnaire, Household Folder, DHKS Questionnaire, and DHKS Folder

Processing step	Document			
	Screener	Household Questionnaire	Household Folder	DHKS*
Coding	12	11	12	9
Coding verification	2	2	2	2
Data entry	6	6	6	6
Machine edit	5	5	5	5
Transmittal to ARS	2	1	1	2
Overall processing time	27	25	26	24

*Questionnaire and Folder.

4.7 Delivery of Data to ARS

Electronic data with matching hard-copy documents were delivered to ARS every week. A list of batches by document type was also included to identify the contents of the delivery. Electronic data were transmitted by cc:Mail.

Modems and regular telephone lines were used to transmit data and other information during the CSFII/DHKS 1994. The cc:Mail and cc:Mail Remote packages were used for the following transactions:

1. Daily delivery of FTS files;
2. Weekly delivery of data files and reports;
3. Transfer of entire files of recipes and unknown foods for purposes of comparison; and
4. Miscellaneous communications.

Daily Deliveries

A snapshot of the FTS files was produced each day and transmitted electronically to ARS. The system automatically compressed a copy of the FTS files into a zip file, built the text of the cc:Mail message listing the files being delivered, assembled the text and the files into a single package, and sent it to the ARS mailbox on Westat's network. The entire process took less than 5 minutes. When they were ready to receive the message, the staff at ARS used cc:Mail Remote to connect to Westat's network and download the message. The process worked well at both Westat and ARS.

Weekly Deliveries

Weekly deliveries of data files and reports were scheduled for the Tuesday of every week. The data delivery consisted of the following:

- A cover memo;
- Survey Net files;
- Flat files containing non-food data from the Day 1 and Day 2 Intake Questionnaires; data from the Screener, Household, and DHKS Questionnaires; data from the Household Folder; and a file named CONTENTS, which listed the files being delivered with that week's message;

- Hard-copy data matched to the data in the flat files; and
- Hard-copy problem cards, code changes, decision logs, and keying error reports.

At times, more than 200 files (including reports and Survey Net index files, recipe files, unknown food files, and various flat files) were transmitted during a single week. An automated process examined the FTS database for files marked as ready for delivery and produced (1) a list for use in assembling hard-copy documents to be delivered to ARS and (2) a set of computer files that were used by the compression routine to determine the computer (VAX or PC file server), directory, and name of each file in the shipment. The hard-copy list of delivery files was reviewed and approved by the data preparation manager before a clerk created the cc:Mail delivery message.

The system built the draft cc:Mail message, assembled the zip files, created the contents list, and attached the files to the message for review. The message and files were then transmitted to ARS's mailbox on the Westat network.

4.8 Data Processing Issues

The CSFII/DHKS data preparation and processing procedures worked well, and Westat delivered data to ARS each week as required by the contract. However, the weekly delivery requirement imposed inefficiencies on the processing operations. In order to maintain a sufficient flow of documents to meet the delivery schedule, all of the processing tasks (i.e., coding, verifying, adjudicating, key entry, machine editing, delivery preparation) were performed on a small number of documents each week rather than grouping the documents into more efficient work units. The impact on one operation, machine editing and the resolution of inconsistencies, provides an example. The time required to machine edit documents and resolve inconsistencies is a function of both the time required to run the machine editing programs and the number of documents being edited. In Westat's experience, increasing the number of documents to be edited does not substantially increase the amount of editing time, and larger batches sometimes reveal patterns in the inconsistencies that are more difficult to identify when fewer questionnaires are being edited. The weekly delivery requirement also decreased the likelihood that all documents associated with a case or household would be processed together. Westat developed extensive special edits to check for item consistency across the documents associated with a case. The resolution of inconsistencies often required that delivered documents be pulled from ARS files for review by Westat staff. If all or most of the documents associated with a

case were processed together, inconsistencies could be resolved before delivery to ARS. Westat recommends that ARS reconsider the weekly delivery requirement for future surveys.

5. DOCUMENTATION OF PROBABILITIES OF SELECTION AND CALCULATION OF SAMPLING WEIGHTS

In general, the analysis of survey data from complex sample designs requires the use of weights to compensate for variable probabilities of selection, differential nonresponse rates, and possible deficiencies in the sampling frame (e.g., undercoverage of certain population groups). For the Continuing Survey of Food Intakes by Individuals and the Diet and Health Knowledge Survey (CSFII/DHKS), the overall probabilities of selection were designed to vary by sex, age, and income level in order to meet specified precision goals for sex-age-income subgroups. For the CSFII/DHKS 1994 (the first of 3 survey years), these probabilities ranged from approximately 1 in 60,000 for non-low-income females aged 30 to 39 years to approximately 1 in 11,000 for low-income males aged 50 to 59 years and children aged 1 and 2 years. Also, the occasional use of special subsampling procedures to control the workload in a few area segments introduced some additional variation in the overall selection probabilities.

The base weight associated with a sample person (SP) is equal to the reciprocal of the probability of including that person in the sample. The base weights inflate the sample to the population if there is no nonresponse or noncoverage in the survey. For the CSFII/DHKS, nonresponse can occur at different stages of data collection, for example, (1) before the enumeration of SPs in the household, (2) after household enumeration and the selection of SPs but before the completion of the Day 1 Intake interview, (3) after the Day 1 Intake interview but before the completion of the Day 2 Intake interview, and (4) after the Day 1 Intake interview but before the completion of the DHKS interview. In addition, nonresponse to the Household Questionnaire can occur after the selection of SPs in eligible households. Noncoverage arises when some members of the survey population have no chance of being selected into the sample. With the CSFII/DHKS, noncoverage can occur from incomplete listings of dwelling units (DUs) in selected segments or incomplete listings of persons within DUs.

To compensate for nonresponse and noncoverage, the CSFII/DHKS 1994 data were weighted in the following steps. First, a base weight equal to the reciprocal of the probability of selection was assigned to each SP selected for the study. The base weights were then adjusted for nonresponse within homogeneous classes defined by variables that were determined to be correlated with response rates. Finally, the nonresponse-adjusted weights were calibrated to population estimates

from the March 1994 Current Population Survey (CPS) to compensate for random variation in the observed sample counts and possible undercoverage of certain groups in the area sample frame.

As described in detail in the following sections, two sets of weights were calculated: a set of weights for the Day 1 Intake interviews and another set for the DHKS interviews. In addition, jackknife replicate weights were calculated for each of these two data sets to facilitate variance estimation.

5.1 Development of Base Weights

The base weight associated with an SP is the reciprocal of the overall probability of including that person in the study. For the CSFII/DHKS 1994, SPs were selected through a complex multistage sample design involving the selection of primary sampling units (PSUs), area segments within PSUs, DUs within segments, and finally persons (SPs) within households. Consequently, the following components were required to calculate the overall probabilities of selection:

1. The probability of selecting the PSU (P_h);
2. The probability of selecting the segment (or chunk) within the PSU (S_{hi});
3. The probability of selecting the household within the segment (H_{hij});
4. The probability that a household identified through the "missed structure procedure" was retained for the sample (H_{hij}^R);
5. The probability of selecting an eligible person (SP) in sex-age-income domain α within the household for the Intake interviews ($I_{\alpha hijk}$); and
6. The probability of selecting an eligible respondent for the DHKS.

It should be noted that, in a few instances, a sampled segment was so large that it was divided into two or more subsegments of approximately equal size (called "chunks"). One subsegment, within which households were to be listed, was then randomly selected with probability proportional to estimated size. In these cases, the chunk was considered to be the segment, and the S_{hi} 's as defined above reflected the probability of selecting the given chunk within the original segment. In other words, if S_{hs}^o was the probability of selecting the original segment and C_{hsi} was the

probability of selecting the chunk within the segment, the overall probability of selecting chunk i in segment s was $S_{hi} = S_{hs}^o C_{hsi}$.

Also, note that the factor H_{hij}^R applies to a few segments in which the number of DUs found through the missed structure procedure exceeded 10. In such cases, a random subsample of 10 of the DUs was retained in the study. DUs identified through the missed structure procedure were subsampled solely to control the interviewing workload within the segment, and subsampling applied only to DUs identified through the missed structure procedure. Any additional DUs identified through the related but distinct "missed DU" procedure were not subsampled (i.e., all such DUs were retained in the sample).

The goal of sampling was to select self-weighting samples of SPs within each sex-age-income domain. Thus, in segments for which $H_{hij}^R = 1$, the overall probability of selecting person k in sex-age-income domain α in household j in segment (chunk) i in PSU h is expressed as follows:

$$\begin{aligned} P_{\alpha hijk} &= P_h S_{hi} H_{hij} I_{\alpha hijk} \\ &= 1/K_{\alpha}, \end{aligned} \tag{1}$$

where K_{α} depends only on the sex-age-income domain to which the SP was assigned at the time of screening.¹ The term H_{hij} in formula (1) is the within-segment sampling rate used to select households in the segment (or chunk) and was designed to yield a self-weighting national sample of approximately 9,500 households. The term K_{α} in formula (1) is the reciprocal of the overall rate of selecting persons in domain α and can be thought of as the "desired" base weight. The values of K_{α} used in the first year of the study are summarized in Table 5-1 by sex-age-income domain.

The actual base weight for an SP in domain α was computed as follows:

$$w_{\alpha hijk}^{\text{base}} = K_{\alpha} / H_{hij}^R, \tag{2}$$

which in almost all cases is equal to the desired base weight.

¹In a few cases, the age recorded in the Screener Questionnaire and the age reported in the Intake interview differed. For purposes of assigning the base weights, the age reported in the Screener was used.

Table 5-1. Desired SP base weights and within-household sampling rates for the CSFII/DHKS 1994 by analytical domain

Analytical domain	Income group based on 130% of Federal poverty guidelines	Sex	Age group (years)	Probability of selecting an SP within household ($I_{\alpha hijk}$)	Desired base weight (K_{α})
1	All income	Male	1-2	1.0000	10,925.20
2			3-5	0.6835	15,983.75
3			6-11	0.3246	33,655.55
4			12-19	0.2566	42,584.10
5			20-29	0.2099	52,038.33
6			30-39	0.1980	55,189.90
7			40-49	0.2473	44,184.12
8			50-59	0.3641	30,004.88
9			60-69	0.4218	25,902.47
10			70+	0.4815	22,691.13
11		Female	1-2	1.0000	10,925.20
12			3-5	0.6835	15,983.75
13			6-11	0.3463	31,552.87
14			12-19	0.2658	41,101.56
15			20-29	0.2037	53,628.15
16			30-39	0.1735	62,985.05
17			40-49	0.2254	48,462.68
18			50-59	0.3463	31,552.87
19			60-69	0.3536	30,897.32
20			70+	0.3246	33,655.55
21	Low income	Male	1-2	1.0000	10,925.20
22			3-5	0.6835	15,983.75
23			6-11	0.3788	28,838.40
24			12-19	0.3788	28,838.40
25			20-29	0.4592	23,791.50
26			30-39	0.4592	23,791.50
27			40-49	0.7809	13,989.90
28			50-59	1.0000	10,925.20
29			60-69	0.8337	13,105.06
30			70+	0.6946	15,728.27
31		Female	1-2	1.0000	10,925.20
32			3-5	0.6835	15,983.75
33			6-11	0.3641	30,004.88
34			12-19	0.3536	30,897.32
35			20-29	0.2997	36,456.04
36			30-39	0.2997	36,456.04
37			40-49	0.5482	19,928.62
38			50-59	0.6697	16,312.45
39			60-69	0.4592	23,791.50
40			70+	0.3246	33,655.55

It should be noted that the weights given by formula (2) applied to SPs 1 year of age or older. For infants under 1 year of age, the weights were derived differently. This is because infants under 1 year of age were included in the CSFII/DHKS 1994 sample whenever another eligible SP (1 year old or older) was selected from the household. Therefore, the probability of selecting an infant for the CSFII/DHKS 1994 was the same as the probability of retaining that household for the CSFII/DHKS.

The probability of retaining a household for the CSFII/DHKS 1994 depended on the income level and composition of the household. For example, screened households containing any persons 1 to 2 years old were retained for the CSFII/DHKS with conditional certainty. Thus, for such households, the probability of selection is simply $f = (10,925.20)^{-1}$, where f is the overall rate at which households were selected for screening in 1994. On the other hand, households with persons 3 to 5 years of age but no one between the ages of 1 and 2 years had a somewhat smaller chance of being retained for the CSFII/DHKS. In general, the probability of retaining households for the CSFII/DHKS was equal to $A_i f$, where A_i is the expected proportion of households from which SPs with specified characteristics would be selected. In Table 5-2, it can be seen that households with persons 3 to 5 years of age but no one between the ages of 1 to 2 years (Set 2 in the table) would be retained for the CSFII/DHKS if they were assigned a sampling message between 5 and 24. Thus, $A_i = 0.6835$ for this set of households. The factors required for calculating the infant weights for various subsets of the sample are given in Table 5-2 for completeness and reference. Within a given household, A_i is the maximum within-household selection probability among the individuals in the household. The calculation of the base weight for infants was accomplished by simply assigning the minimum base weight of the other SPs in the household to the sampled infant.

Table 5-3 summarizes the weighted counts of SPs selected for the study, by sex and age. The corresponding March 1994 CPS estimates are also given in this table for comparison purposes. Note that the weighted counts in this table include both respondents and nonrespondents to the Day 1 Intake. Also, note that the "age" used to classify SPs in this table was based on Screener information, which in a few cases differed from the age given in the Day 1 Intake interview.

The base weights given in formula (2) depend only on the values of K_α and H_{hij}^R . However, for documentation purposes, all of the components entering into the calculation of the base weights are recorded in the weight files, including those summarized in the following sections.

Table 5-2. Household weighting factors for deriving infant base weights

Set	Composition of household	Message numbers leading to selection of SPs	A_i
	Non-low-income households		
1	Any persons 1-2 years	1-24	1.0000
2	Any persons 3-5 years not included in previous subset	5-24	0.6835
3	Any males 70+ years not included in previous subsets	8-24	0.4814
4	Any males 60-69 years not included in previous subsets	10-24	0.4217
5	Any males 50-59 years not included in previous subsets	12-24	0.3641
6	Any females 60-69 years not included in previous subsets	13-24	0.3536
7	Any females 6-11 years or any females 50-59 years not included in previous subsets	14-24	0.3462
8	Any males 6-11 years or any females 70+ years not included in previous subsets	15-24	0.3246
9	Any females 12-19 years not included in previous subsets	17-24	0.2658
10	Any males 12-19 years not included in previous subsets	18-24	0.2566
11	Any males 40-49 years not included in previous subsets	19-24	0.2473
12	Any females 40-49 years not included in previous subsets	20-24	0.2254
13	Any males 20-29 years not included in previous subsets	21-24	0.2099
14	Any females 20-29 years not included in previous subsets	22-24	0.2037
15	Any males 30-39 years not included in previous subsets	23-24	0.1980
16	Any females 30-39 years not included in previous subsets	24	0.1735
	Low-income households		
17	Any persons 1-2 years or any males 50-59 years	1-24	1.0000
18	Any males 60-69 years not included in previous subset	2-24	0.8336
19	Any males 40-49 years not included in previous subsets	3-24	0.7809
20	Any males 70+ years not included in previous subsets	4-24	0.6946
21	Any persons 3-5 years not included in previous subsets	5-24	0.6835
22	Any females 50-59 years not included in previous subsets	6-24	0.6697
23	Any females 40-49 years not included in previous subsets	7-24	0.5482
24	Any males 20-39 years or any females 60-69 years not included in previous subsets	9-24	0.4592
25	Any males 6-19 years not included in previous subsets	11-24	0.3788
26	Any females 6-11 years not included in previous subsets	12-24	0.3641
27	Any females 12-19 years not included in previous subsets	13-24	0.3536
28	Any females 70+ years not included in previous subsets	15-24	0.3246
29	Any females 20-39 years not included in previous subsets	16-24	0.2997

Table 5-3. Weighted counts of SPs selected for Day 1 Intake interviews by sex and age, and corresponding March 1994 CPS estimates

Sex	Age based on Screener (years)	March 1994 CPS estimate (1,000s)	Number of SPs selected for Day 1 Intake	Weighted count of SPs (1,000s)*
Male	under 1	2,036	69	1,272
	1-2	4,202	287	3,160
	3-5	6,258	351	5,689
	6-11	11,861	291	9,743
	12-19	14,776	347	13,621
	20-29	18,941	343	14,205
	30-39	21,979	394	19,293
	40-49	17,784	397	14,489
	50-59	11,443	366	9,646
	60-69	9,019	338	8,027
	70+	8,498	321	6,810
Female	under 1	1,943	79	1,432
	1-2	4,020	277	3,036
	3-5	5,982	336	5,395
	6-11	11,297	302	9,561
	12-19	14,268	328	12,803
	20-29	19,145	342	16,701
	30-39	22,277	347	19,897
	40-49	18,322	369	15,409
	50-59	12,236	369	10,613
	60-69	10,569	314	9,383
	70+	12,653	301	10,130
Total		259,507	6,868	220,316

*Weights are Day 1 base weights described in Section 5.1.

5.1.1 PSU Selection Probability

With one PSU sampled per stratum, the probability of selecting PSU h in stratum s is equal to

$$P_h = \frac{N_{sh}^{1990}}{\sum_{h=1}^{L_s} N_{sh}^{1990}}, \quad (3)$$

where N_{sh}^{1990} is the 1990 population of PSU h in stratum s and L_s is the number of PSUs in the frame in stratum s . For 24 of the 62 PSUs in the CSFII/DHKS sample, $P_h = 1$.

5.1.2 Segment Selection Probability

The probability of selecting segment i in PSU h is given by

$$S_{hi} = \frac{12 D_{hi}^{1990}}{\sum_{i=1}^{N_h} D_{hi}^{1990}}, \quad (4)$$

where D_{hi}^{1990} is the 1990 number of DUs in segment i in PSU h and N_h is the total number of segments in the PSU. The 12 in the numerator of S_{hi} reflects the fact that exactly 12 segments were selected from each PSU for the first year of the study.

Some of the sampled segments were so large that an additional stage of sampling was introduced to reduce the amount of listing required. In general, these large segments were divided into two or more smaller chunks of approximately equal size, and one chunk was selected with probability proportional to estimated size. Of the 744 segments originally selected for the CSFII/DHKS 1994, 54 were chunked according to these procedures. For these 54 segments, the overall probability of selecting chunk c in segment i in PSU h is

$$S_{hic} = \left(\frac{12D_{hi}^{1990}}{\sum_{i=1}^{N_h} D_{hi}^{1990}} \right) \left(\frac{D_{hic}^{est}}{\sum_{c=1}^{m_{hi}} D_{hic}^{est}} \right), \quad (5)$$

where D_{hic}^{est} is the estimated size of the c -th chunk in the segment and m_{hi} is the total number of chunks in the segment. For these cases, the chunk is essentially the segment, so that the subscript c can be dropped without ambiguity. All chunked segments are flagged as such in the weight files, and the values of D_{hic}^{est} are provided for them.

5.1.3 Household Selection Probability

Within each selected segment (or chunk), DUs were listed and subsampled at rates designed to yield a self-weighting sample of approximately 9,500 DUs. That is, listed DUs in segment i in PSU h were subsampled at a rate of

$$H_{hij} = \frac{r}{P_h S_{hi}}, \quad (6)$$

where

$$r = \frac{9,500}{\sum_{h=1}^{62} \sum_{i=1}^{12} D_{hi}^L / (P_h S_{hi})} \quad (7)$$

$$D_{hi}^L = \text{the number of listed DUs in segment } i \text{ in PSU } h.$$

5.1.4 Probability of Retaining Missed Dwelling Units

Westat's missed structure and missed DU procedures were designed to identify any DUs that may have been missed in the listing process (see Section 2.4.4). It can be shown that these procedures will yield a sample of DUs that have the same overall probabilities of selection as the originally listed DUs (e.g., see CSFII/DHKS Project Memo #102). However, the number of missed DUs in a segment can occasionally be large, especially if new construction has occurred since the original listing was prepared. In such cases, it was desirable to subsample them to control the workload in the segment. In general, if the total number of DUs found by the missed structure procedure was more than 10, a random subsample of 10 missed DUs was retained for the study. Thus,

$$H_{hij}^R = \begin{cases} \frac{10}{D_{hi}^{\text{missed}}} & \text{if } D_{hi}^{\text{missed}} > 10, \\ 1, & \text{if } D_{hi}^{\text{missed}} \leq 10, \end{cases} \quad (9)$$

where D_{hi}^{missed} = the number of missed DUs in the segment that were identified through the missed structure procedure. The subsampling procedure described above was required for only 4 of the 92 segments for which the missed structure procedure was applied. (Any additional DUs found through the related but distinct missed DU procedure were not subsampled; that is, all such DUs were retained in the sample. Hence, no weight adjustments were required for these DUs.)

5.1.5 SP Selection Probability

The fourth stage of sampling involved the selection of members of a household for inclusion in the CSFII/DHKS. As described in Section 2.5, the screened households were randomly assigned to one of several nonoverlapping subsets. Within a particular subset, all members of a set of specified sex-age-income domains were included in the CSFII/DHKS. Application of these rules had the effect of designating a random subset of the total household sample for selecting members of each sex-age-income domain. In other words, $I_{\alpha hijk}$, the probability of selecting the k -th SP in domain α in

household j in segment i in PSU h , was simply the proportion of DUs in the total sample from which an SP in domain α could have been sampled. The values of $I_{\alpha hijk}$ are summarized in the next-to-last column of Table 5-1.

Finally, among SPs 20 years or older in the household who completed the Day 1 Intake interview without the assistance of a proxy, one SP was randomly selected for the DHKS. Restricting the DHKS selection to SPs who completed the Day 1 Intake interview ensured the maximum linkage between the Intake and DHKS items. For SPs who were selected for the DHKS, the corresponding within-household selection probability was $I_{\alpha hijk}/q_j$, where q_j is the number of SPs 20 years or older in the household who completed the Day 1 Intake interview without the assistance of a proxy.

5.1.6 Imputing Classification Variables Required for Weighting

The assignment of base weights as described in the preceding sections required that sex, age, and income status be known for all SPs. For a small number of cases (all nonrespondents), one or more of the required variables were not available in the Screener Questionnaire. For these cases, values of the missing variables were imputed by the methods described below.

There were six cases for which sex was missing. For each of these SPs, a value was imputed by generating a uniform random number between 0 and 1 and setting the sex equal to "male" if the random number was less than 0.5. Otherwise, the sex was set to "female."

For the 83 cases for which age was missing, a broad age range (e.g., "under 18" or "over 65") was often available in the abbreviated enumeration table ("neighbor information") of the Screener Questionnaire. This information was used to impute age by the following "hot-deck" procedure. First, a listing of the 6,868 SPs, sorted by message number and randomly within message number, was prepared. In the sorted listing, each case having a missing value for age was located. For each of these cases, the next listed case that was assigned the same message number and that satisfied the age range recorded in the abbreviated enumeration table for the case with missing age was also identified. The age recorded for the latter cases (referred to as "donor records") was then assigned to the corresponding record with the missing age.

Finally, income level was imputed for 12 SPs. To be consistent with the procedures developed for selecting SPs when income information was not obtained during screening (see Section 2.5.3), the imputation was accomplished by inspecting the information recorded by the interviewer in the Household Folder to determine whether or not the household included children under 6 years of age and no males over 18 years. If the Household Folder information indicated this to be the case, the household and its members were coded as low income for weighting purposes. Otherwise, the household was imputed as non-low income for weighting purposes.

5.2 Development of Nonresponse Adjustments

Unit nonresponse (i.e., whole questionnaire nonresponse) occurs when an eligible SP fails to respond to the survey for any reason. As described below, separate adjustments were made to compensate for nonresponse in the Screener interview, the Day 1 Intake interview, and the DHKS interview. For a given stage of adjustment, the general approach was to divide the sample into a number of homogeneous weighting classes, within which nonresponse-adjusted weights were calculated by multiplying the base weights by the corresponding inverse of the weighted response rate for the class.

5.2.1 Nonresponse Adjustments for the Screener

Initially, each of the 9,628 DUs selected for the first year of the study was assigned to one of the three *Screener* response status groups specified in Table 5-4. Note that all of the screener nonrespondents (S08-S13) were known to *not* reside in vacant or non-DUs (i.e., they were not out of scope) at the time of screening.

Table 5-4. Definition of response status groups for the Screener

Response status group	Screener Questionnaire dispositions	Number of DUs selected in Year 1
1. Respondents	Complete*	8,333
2. Nonrespondents	Refusals or other nonresponse†	134
3. Out of scope	Ineligible**	1,161
Total		9,628

* Disposition codes S01 to S03 (complete with eligibles) and S04 to S06 (complete with no eligibles).

† Disposition codes S08 to S13 (unavailable for field period, language problem, breakoff, maximum contacts, other nonresponse).

** Disposition code S07 (vacant, not a DU).

Next, each DU was assigned a Screener base weight, w_i^{scr} , defined as follows:

$$w_i^{scr} = \frac{10,925.20}{H_i^{ret}}, \quad (10)$$

where H_i^{ret} is the probability of retaining a structure identified through the missed structure procedure. Note that 10,925.20 is the reciprocal of the desired probability of selecting a DU for the CSFII/DHKS 1994, and H_i^{ret} is generally 1 except for new or missed DUs in four segments in which new and missed DUs found through the missed structure procedure were subsampled to control the interviewers' workload.

Nonresponse adjustment weighting classes were then defined by crossing the following four segment-level variables:

1. Census region (1 = Northeast, 2 = Midwest, 3 = South, and 4 = West);
2. MSA status (1 = MSA, 2 = non-MSA);
3. Minority status of segment (1 = "nonminority" segments, 2 = "high black" or "high Hispanic" segments); and
4. Quarter of data collection.

Within each cell defined by the above cross-classification, an adjustment factor F_g^{scr} was computed as

$$F_g^{scr} = \frac{\sum_{i=1}^{n_1} w_{gi}^{scr} + \sum_{i=1}^{n_2} w_{gi}^{scr}}{\sum_{i=1}^{n_1} w_{gi}^{scr}} \quad (11)$$

where the first sum in the numerator of F_g^{scr} extended over the responding DUs in cell g (response status group 1) and the second sum in the numerator of F_g^{scr} extended over the nonresponding DUs in cell g (response status group 2). The sum in the denominator of F_g^{scr} extended over the responding DUs in cell g . The out-of-scope cases (response status group 3) were not used in the calculation of the adjustment factors.

The reciprocal of F_g^{scr} is a weighted response rate for the non-out-of-scope DUs in weighting class g . The factor F_g^{scr} is a DU-level adjustment that was used to inflate the DU base weights to compensate for the nonresponding DUs in the Screener sample. Table 5-5 summarizes the values of F_g^{scr} for the 57 weighting classes.

Table 5-5. Weighted counts of DUs and Screener nonresponse adjustment factors, by weighting class

Weight adjust- ment class	Census region	MSA status	Minority status of segment	Quarter	Number of sample DUs	Weighted count of responding DUs	Weighted count of non- responding DUs	Weighted count of out-of-scope DUs	Screener nonresponse adjustment factor, F_g^{scr}
1	1	1	1	1	341	3,190,158	54,626	480,709	1.0171
2	1	1	1	2	409	3,900,296	65,551	502,559	1.0168
3	1	1	1	3	319	2,949,804	54,626	480,709	1.0185
4	1	1	1	4	345	2,862,402	76,476	830,315	1.0267
5	1	1	2	1	77	710,138	32,776	98,327	1.0462
6	1	1	2	2	51	458,858	32,776	65,551	1.0714
7	1	1	2	3	114	1,070,670	21,850	152,953	1.0204
8	1	1	2	4	91	830,315	21,850	142,028	1.0263
9	1	2	1	1	57	469,784	10,925	142,028	1.0233
10	1	2	1	2	58	426,083	0	207,579	1.0000
11	1	2	1	3	52	404,232	21,850	142,028	1.0541
12	1	2	1	4	66	677,362	10,925	32,776	1.0161
13	2	1	1	1	322	3,255,710	21,850	240,354	1.0067
14	2	1	1	2	332	3,441,438	32,776	152,953	1.0095
15	2	1	1	3	323	3,364,962	32,776	131,102	1.0097
16	2	1	1	4	346	3,539,765	0	240,354	1.0000
17	2	1	2	1	80	688,288	0	185,728	1.0000
18	2	1	2	2	69	557,185	32,776	163,878	1.0588
19	2	1	2	3	75	710,138	21,850	87,402	1.0308
20	2	1	2	4	74	568,110	76,476	163,878	1.1346
21	2	2	1	1	188	1,726,182	0	327,756	1.0000
22	2	2	1	2	167	1,638,780	0	185,728	1.0000
23	2	2	1	3	170	1,595,079	0	262,205	1.0000
24	2	2	1	4	149	1,365,650	10,925	251,280	1.0080
25	2	2	2	4	14	120,177	0	32,776	1.0000
26	3	1	1	1	440	4,501,182	21,850	284,055	1.0049
27	3	1	1	2	426	4,107,875	32,776	513,484	1.0080
28	3	1	1	3	466	4,686,911	43,701	360,532	1.0093
29	3	1	1	4	419	4,344,952	21,850	352,884	1.0050
30	3	1	2	1	156	1,507,678	10,925	185,728	1.0072
31	3	1	2	2	172	1,573,229	10,925	294,980	1.0069
32	3	1	2	3	190	2,029,903	43,701	395,492	1.0215
33	3	1	2	4	169	1,584,154	32,776	229,429	1.0207
34	3	2	1	1	199	1,562,304	10,925	600,886	1.0070
35	3	2	1	2	186	1,562,304	10,925	458,858	1.0070
36	3	2	1	3	173	1,584,154	0	305,906	1.0000
37	3	2	1	4	161	1,398,426	54,626	305,906	1.0391
38	3	2	2	1	64	382,382	0	316,831	1.0000
39	3	2	2	2	62	524,410	0	152,953	1.0000

Table 5-5. Weighted counts of DUs and Screener nonresponse adjustment factors, by weighting class (continued)

Weight adjust- ment class	Census region	MSA status	Minority status of segment	Quarter	Number of sample DUs	Weighted count of responding DUs	Weighted count of non- responding DUs	Weighted count of out-of-scope DUs	Screener nonresponse adjustment factor, F_g^{scr}
40	3	2	2	3	74	535,335	0	273,130	1.0000
41	3	2	2	4	56	426,083	0	185,728	1.0000
42	4	1	1	1	321	3,190,158	32,776	284,055	1.0103
43	4	1	1	2	278	2,742,225	65,551	229,429	1.0239
44	4	1	1	3	266	2,611,123	109,252	185,728	1.0418
45	4	1	1	4	341	3,432,698	98,327	292,795	1.0286
46	4	1	2	1	69	644,587	32,776	76,476	1.0508
47	4	1	2	2	100	863,091	10,925	218,504	1.0127
48	4	1	2	3	136	1,158,071	87,402	240,354	1.0755
49	4	1	2	4	71	600,886	65,551	109,252	1.1091
50	4	2	1	1	57	548,445	0	96,142	1.0000
51	4	2	1	2	63	655,512	0	32,776	1.0000
52	4	2	1	3	40	437,008	0	0	1.0000
53	4	2	1	4	63	644,587	0	43,701	1.0000
54	4	2	2	1	26	273,130	0	10,925	1.0000
55	4	2	2	2	26	240,354	10,925	32,776	1.0455
56	4	2	2	3	35	360,532	10,925	10,925	1.0303
57	4	2	2	4	34	338,681	10,925	21,850	1.0323
Total					9,628	91,573,934	1,463,977	12,805,427	

5.2.2 Nonresponse Adjustments for the Day 1 Intake Interview

A total of 6,868 SPs in the 8,333 households that completed the Screener were eligible for the Day 1 Intake interview. To compensate for the fact that not all of the 6,868 eligible SPs participated in the Day 1 Intake interview, the following procedures were used to adjust the SP base weights.

First, each of the 6,868 SPs selected for the CSFII/DHKS 1994 was assigned to one of the three response status groups specified in Table 5-6. Note that for the purpose of calculating the nonresponse weighting adjustments described below, the four out-of-scope cases were considered to be "respondents."²

Table 5-6. Definition of response status groups for the Day 1 Intake interview

Response status group	Day 1 Intake dispositions	Number eligible SPs
1. Respondents	Complete*	5,589
2. Nonrespondents	Refusals or other nonresponse†	1,275
3. Out of scope	Ineligible**	4
Total		6,868

* Disposition codes F01 to F02 (complete with SP or proxy).

† Disposition codes F08 to F15 (unavailable for field period; language problem; breakoff; maximum contacts; moved, unable to locate; other nonresponse).

** Disposition code F30 (out of scope).

² SPs who died or were institutionalized before completing the Day 1 Intake interview were ineligible. Treating such SPs as respondents in the weighting adjustments had the effect of assuming that a small percentage of the nonrespondents were also out of scope.

Next, each eligible SP was assigned an initial weight, w_{gi}^{I1} , defined as follows:

$$w_{gi}^{I1} = F_g^{scr} w_{gi}^{base}, \quad (12)$$

where w_{gi}^{base} is the base weight for SP i in Screener adjustment class g and F_g^{scr} is the corresponding Screener nonresponse adjustment factor summarized in Table 5-5.

Weighting classes for adjusting the initial Day 1 Intake weights for nonresponse were then identified by a CHAID analysis.³ The CHAID algorithm (which stands for "chi-square automatic interaction detector") provided an objective and computationally efficient way of identifying subsets of the sample that were internally homogeneous with respect to response rates but that maximized the variation in response rates between subsets. The 22 subsets (classes) that were identified by the CHAID analysis and that were subsequently used for weighting purposes are summarized in Table 5-7.

Within each of the weighting classes defined in Table 5-7, a Day 1 nonresponse adjustment factor, F_h^{I1} , was computed as

$$F_h^{I1} = \frac{\sum_{i=1}^{n_1} w_{hi}^{I1} + \sum_{i=1}^{n_2} w_{hi}^{I1}}{\sum_{i=1}^{n_1} w_{hi}^{I1}}, \quad (13)$$

where the first sum in the numerator of F_h^{I1} is the sum of the initial weights of the responding SPs in class h and the second sum in the numerator of F_h^{I1} is the sum of the initial weights of the nonresponding SPs in class h . The sum in the denominator of F_h^{I1} is the sum of the initial weights of the responding SPs in class h . The four "out-of-scope" cases were treated as "respondents" in the calculation of F_h^{I1} ; thus, the adjustment had the effect of assuming that a very small proportion of the nonrespondents would have been out of scope if an Intake interview had been initiated.

³ Magidson/SPSS Inc., 1993, SPSS[®] for Windows[™] CHAID[™], Release 6.0.

Table 5-7. Definition of weighting classes for adjusting the Day 1 Intake weights

Day 1 weighting class	Income level based on Screener	Age based on Screener (years)	Sex	Census region	MSA status	Quarter	Minority status of segment
1	130%+	under 12	ALL	ALL	ALL	ALL	ALL
2	130%+	12-49	ALL	1	ALL	ALL	ALL
3	130%+	12-49	male	2,4	MSA	1,4	ALL
4	130%+	12-49	male	2,4	MSA	2,3	ALL
5	130%+	12-49	female	2,4	MSA	ALL	ALL
6	130%+	12-39	ALL	2,4	non-MSA	ALL	ALL
7	130%+	40-49	ALL	2,4	non-MSA	ALL	ALL
8	130%+	12-49	ALL	3	ALL	ALL	ALL
9	130%+	50-69	ALL	1,3,4	MSA	1,3	ALL
10	130%+	50-69	ALL	1,3,4	MSA	2,4	ALL
11	130%+	50-69	ALL	2	MSA	1,2	ALL
12	130%+	50-69	ALL	2	MSA	3,4	ALL
13	130%+	50-69	ALL	ALL	non-MSA	ALL	ALL
14	130%+	70+	ALL	ALL	MSA	ALL	ALL
15	130%+	70+	ALL	ALL	non-MSA	ALL	ALL
16	< 130%	under 12	male	ALL	MSA	ALL	ALL
17	< 130%	12+	male	ALL	MSA	ALL	ALL
18	< 130%	ALL	female	ALL	MSA	ALL	ALL
19	< 130%	under 12	ALL	ALL	non-MSA	ALL	low
20	< 130%	12-29	ALL	ALL	non-MSA	ALL	low
21	< 130%	30+	ALL	ALL	non-MSA	ALL	low
22	< 130%	ALL	ALL	ALL	non-MSA	ALL	high

Table 5-8 summarizes the values of F_h^{I1} by Day 1 Intake weighting class. The factor F_h^{I1} is an SP-level adjustment that was applied to the initial weights, w_{hi}^{I1} , of the responding SPs in the weighting class h to obtain the nonresponse-adjusted Day 1 Intake weight. Specifically, the nonresponse-adjusted Day 1 Intake weight for SP i in weighting class h was computed as

$$w_{hi}^{A1} = F_h^{I1} w_{hi}^{I1} . \quad (14)$$

5.2.3 Nonresponse Adjustments for the DHKS

As required by the CSFII/DHKS design, only SPs 20 years of age or over who had *completed* the Day 1 Intake interview without the assistance of a proxy were eligible for the DHKS. If there were two or more such respondents, one was randomly selected for the DHKS. Consequently, the "base weight" for the i -th person selected for the DHKS was computed as

$$w_{hi}^{DHKS} = q_i G_h^{I1} w_{hi}^{I1} , \quad (15)$$

where w_{hi}^{I1} is the initial (Screener nonresponse-adjusted) weight for SP i in Day 1 weighting class h , q_i is the number of SPs 20 years of age or over in the household who *completed* the Day 1 Intake interview, and G_h^{I1} is the "modified" Day 1 Intake nonresponse adjustment factor for weighting class h . Note that G_h^{I1} is referred to as the "modified" Day 1 Intake nonresponse adjustment factor (and thus differs from F_h^{I1}) because a few SPs for whom a Day 1 Intake was completed by proxy (cases with a disposition code of F02) were treated as Day 1 Intake nonrespondents for weighting the DHKS. In other words, to derive the DHKS weights, the Day 1 nonresponse adjustment factors had to be recomputed using the procedures described in Section 5.2.2, but treating the cases completed by proxy as nonrespondents. The resulting recomputed factors are the modified factors, G_h^{I1} . The modified factors used to weight the DHKS sample are given in Table 5-9.

Table 5-8. Weighted counts of SPs and Day 1 Intake nonresponse adjustment factors by weighting class

Weighting class	Number of SPs in sample	Total weighted number of SPs*	Number of responding SPs†	Weighted number of responding SPs*	Count of non-responding SPs	Weighted number of non-responding SPs*	Day 1 Intake adjustment factor, F_h^{I1}
1	1,379	28,926,628	1,181	24,715,424	198	4,211,204	1.1704
2	341	17,676,622	244	12,614,894	97	5,061,728	1.4013
3	178	8,729,354	148	7,286,131	30	1,443,223	1.1981
4	204	10,205,694	146	7,214,120	58	2,991,574	1.4147
5	360	18,867,908	297	15,636,214	63	3,231,694	1.2067
6	125	6,236,672	115	5,763,135	10	473,536	1.0822
7	72	3,353,110	57	2,655,388	15	697,722	1.2628
8	754	40,666,952	570	31,323,638	184	9,343,315	1.2983
9	324	9,993,748	247	7,703,964	77	2,289,785	1.2972
10	353	10,632,106	239	7,233,898	114	3,398,208	1.4698
11	116	3,469,779	61	1,821,252	55	1,648,527	1.9052
12	100	3,017,286	71	2,132,862	29	884,424	1.4147
13	229	6,866,864	185	5,540,797	44	1,326,067	1.2393
14	344	9,828,652	257	7,343,292	87	2,485,359	1.3385
15	140	3,894,374	118	3,282,384	22	611,990	1.1865
16	222	3,925,040	202	3,592,277	20	332,764	1.0926
17	443	9,009,222	367	7,469,988	76	1,539,234	1.2061
18	658	16,952,131	595	15,271,981	63	1,680,151	1.1100
19	111	2,108,744	107	2,035,764	4	72,980	1.0359
20	68	2,025,603	68	2,025,603	0	0	1.0000
21	184	3,910,781	170	3,655,479	14	255,302	1.0698
22	163	3,664,900	148	3,342,704	15	322,196	1.0964
Total	6,868	223,962,172	5,593	179,661,189	1,275	44,300,982	

* Weights are the initial weights, w_i^{I1} .

† Includes four SPs who became ineligible before completing the Day 1 Intake interview (Intake disposition code of F30).

Table 5-9. Weighted counts of SPs and modified Day 1 Intake nonresponse adjustment factors by weighting class

Weighting class	Number of SPs in sample	Total weighted number of SPs*	Number of responding SPs†	Weighted number of responding SPs*	Number of non-responding SPs**	Weighted number of non-responding SPs*	Modified Day 1 Intake adjustment factor, G_h^{I1}
1	1,379	28,926,628	1,181	24,715,424	198	4,211,204	1.1704
2	341	17,676,622	244	12,614,894	97	5,061,728	1.4013
3	178	8,729,354	148	7,286,131	30	1,443,223	1.1981
4	204	10,205,694	145	7,160,838	59	3,044,856	1.4252
5	360	18,867,908	296	15,586,593	64	3,281,315	1.2105
6	125	6,236,672	114	5,711,097	11	525,575	1.0920
7	72	3,353,110	57	2,655,388	15	697,722	1.2628
8	754	40,666,952	569	31,274,788	185	9,392,164	1.3003
9	324	9,993,748	244	7,616,384	80	2,377,365	1.3121
10	353	10,632,106	234	7,087,369	119	3,544,736	1.5002
11	116	3,469,779	60	1,790,355	56	1,679,425	1.9380
12	100	3,017,286	71	2,132,862	29	884,424	1.4147
13	229	6,866,864	183	5,483,718	46	1,383,146	1.2522
14	344	9,828,652	236	6,763,010	108	3,065,642	1.4533
15	140	3,894,374	110	3,066,866	30	827,507	1.2698
16	222	3,925,040	202	3,592,277	20	332,764	1.0926
17	443	9,009,222	352	7,222,436	91	1,786,786	1.2474
18	658	16,952,131	588	15,039,503	70	1,912,629	1.1272
19	111	2,108,744	107	2,035,764	4	72,980	1.0359
20	68	2,025,603	68	2,025,603	0	0	1.0000
21	184	3,910,781	166	3,574,639	18	336,142	1.0940
22	163	3,664,900	146	3,312,986	17	351,914	1.1062
Total	6,868	223,962,172	5,521	177,748,924	1,347	46,213,247	

* Weights are the initial weights, w_h^{I1} .

† Cases with Day 1 Intake dispositions of complete with SP and out of scope (disposition codes of F01 and F30).

** Includes Day 1 Intakes completed by a proxy for an adult SP who could not complete the Intake because of his or her physical or mental limitations (disposition code F02) and nonrespondents (disposition codes F08-F15).

To adjust the DHKS base weights for nonresponse, each of the 2,049 SPs selected for the DHKS was assigned to one of the three response status groups specified in Table 5-10. The two out-of-scope cases (response status group 3) were considered to be "respondents" for the purpose of calculating the weight adjustments.

Table 5-10. Definition of the response status groups for the DHKS

Response status group	DHKS Questionnaire dispositions	Number of SPs selected for DHKS in Year 1
1. Respondents	Complete*	1,879
2. Nonrespondents	Refusals or other nonresponse†	168
3. Out of scope	Ineligible**	2
Total		2,049

* Disposition codes D01 to D02 (complete by telephone or in person).

† Disposition codes D08 to D13 and D15 (unavailable for field period; language problem; breakoff; maximum contacts; other nonresponse; moved, unable to locate).

** Disposition code D30 (out of scope).

Next, nonresponse weighting classes for adjusting the DHKS weights were identified by a CHAID analysis using selected variables⁴ available from the Day 1 Intake interview. The 11 classes listed in Table 5-11 were identified by the CHAID analysis and used for weighting purposes. Note that after controlling for the variables listed in Table 5-11, sex, smoking status, and whether the SP was the meal planner were not significant predictors of nonresponse.

⁴ These variables included sex, smoking status, and whether the SP was the meal planner, in addition to those in Table 5-11.

Table 5-11. Definition of weighting classes for adjusting the DHKS weights

DHKS weighting class	Age group (years)	Size of household	Poverty level (percent of Federal poverty level)	On special diet	Food shopper	Food preparer	Race
1	20-29	ALL	ALL	ALL	ALL	ALL	Nonblack
2	20-29	ALL	ALL	ALL	ALL	ALL	Black
3	30-49	1	ALL	ALL	ALL	ALL	ALL
4	30-49	2+	< 131%	ALL	no	ALL	ALL
5	30-49	2+	131%+	ALL	no	ALL	ALL
6	30-49	2+	501%+	ALL	no	ALL	ALL
7	30-49	2+	ALL	no	yes	ALL	ALL
8	30-49	2+	ALL	yes	yes	ALL	ALL
9	50+	1-3	ALL	ALL	ALL	no	ALL
10	50+	4+	ALL	ALL	ALL	no	ALL
11	50+	ALL	ALL	ALL	ALL	yes	ALL

Within each DHKS weighting class defined in Table 5-11, the DHKS adjustment factor, F_h^{DHKS} , was computed as

$$F_h^{DHKS} = \frac{\sum_{i=1}^{n_1} w_{hi}^{DHKS} + \sum_{i=1}^{n_2} w_{hi}^{DHKS}}{\sum_{i=1}^{n_1} w_{hi}^{DHKS}}, \quad (16)$$

where the first sum in the numerator of F_h^{DHKS} extended over the responding SPs in class h and the second sum in the numerator of F_h^{DHKS} extended over the nonresponding SPs in class h . The sum in the denominator of F_h^{DHKS} extended over the responding SPs in class h .

Table 5-12 summarizes the values of F_h^{DHKS} by DHKS weighting class. The factor F_h^{DHKS} is an SP-level adjustment that was applied to the DHKS base weights, w_{hi}^{DHKS} , of the responding SPs in the weighting class h to obtain the nonresponse-adjusted DHKS weight.

Specifically, the nonresponse-adjusted DHKS weight for SP i in weighting class h was computed as

$$w_{hi}^{ADHKS} = F_h^{DHKS} w_{hi}^{DHKS}. \quad (17)$$

Table 5-12 DHKS nonresponse adjustment factors by weighting class

Weighting class	Number of responding SPs	Weighted number of responding SPs*	Number of non-responding SPs	Weighted number of nonrespondents	Number of ineligible SPs	Weighted number of out-of-scope SPs	DHKS nonresponse adjustment factor, F_h^{DHKS}
1	234	22,866,297	29	2,937,955	0	0	1.1285
2	38	2,757,293	6	2,055,707	0	0	1.7456
3	97	5,272,713	13	784,475	0	0	1.1488
4	47	2,035,819	7	309,229	0	0	1.1519
5	132	16,657,485	3	158,801	0	0	1.0095
6	45	5,421,791	0	0	0	0	1.0000
7	324	32,692,095	26	2,078,632	0	0	1.0636
8	52	5,379,914	1	63,454	0	0	1.0118
9	251	14,398,625	27	1,412,582	0	0	1.0981
10	40	2,102,238	9	708,641	0	0	1.3371
11	619	34,276,536	47	2,575,386	2	108,991	1.0751
Total	1,879	143,860,807	168	13,084,862	2	108,991	

*Weights are the DHKS base weights.

5.3 Development of Calibration Adjustments

In addition to compensating for unequal selection probabilities and nonresponse, another important function of weighting is to adjust for sampling variability and possible undercoverage in the sampling frame. Therefore, the final step of the weighting process was to "calibrate" the nonresponse-

adjusted weights so that the sum of the final weights equaled the corresponding March 1994 CPS population cell totals for the following variables⁵:

- Sex;
- Age group (seven categories based on Intake interview: 0-2, 3-5, 6-11, 12-19, 20-39, 40-59, 60+ years);
- Quarter of Intake: winter (January to March), spring (April to June), summer (July to September), and fall (October to December);
- Season of Intake (winter, spring, summer, fall);
- Day of week of Intake;
- Census region (four regions);
- MSA status (MSA vs. non-MSA);
- Household income level [defined in terms of percentage of Federal poverty level in four categories (0-75%, 76-130%, 131-300%, 301%+)];
- Received Food Stamps in past 12 months;
- Home ownership (owned vs. not owned);
- Presence of children under 6 years of age in household;
- Presence of children under 6 to 17 years of age in household;
- Number of adults in household (1, 2, 3+);
- Presence of female head of household 40 years old or younger and no one in the household under 18 years of age;
- Employment status ("had paid job last week") of the female head of household if household had a female head; otherwise, the employment status of the male head of household;
- Employment status ("had paid job last week") of the SP;
- Race of SP (black vs. nonblack); and
- Hispanic origin of SP (Hispanic vs. non-Hispanic).

⁵Variables provided by ARS in memorandum from J. Goldman to A. Chu, dated April 20, 1995.

The calibration was implemented by an iterative process known as "raking ratio weighting." This process was carried out separately for each of the following four subsets specified by ARS: (1) males 20 years of age or older; (2) females 20 years of age or older; (3) children 0 to 5 years of age; and (4) persons 6 to 19 years of age. As documented in Attachment 2.C, the variables used in the raking process differed slightly for the four ARS subsets. For example, the variable on SP's employment status was not applicable to the subsets of younger persons. In Attachment 2.C, the variables (dimensions) used in the weighting process are defined by the variable names *DIM1*, *DIM2*, etc., and may have different meanings for the different subsets. Most of the raking variables are intrinsically univariate, but a few are bivariate in structure. Also shown in Attachment 2.C are the March 1994 CPS population totals to which the nonresponse-adjusted (pre-raked) CSFII/DHKS weights were adjusted.

The algorithm used to calculate the final (calibrated or "raked") weights for the Day 1 Intake data (with analogous procedures for the DHKS data) was essentially as follows:

First, for each level defined by the raking variable *DIM1*, an adjustment factor, $F_{DIM1}^{(1)}$, was computed as

$$F_{DIM1}^{(1)} = \frac{N_{DIM1}}{\sum_{i=1}^{n_1} w_i^{NR}},$$

where N_{DIM1} is the March 1994 CPS control total for the given level of *DIM1*, w_i^{NR} is the nonresponse-adjusted Day 1 weight (or nonresponse-adjusted DHKS weight), and the denominator of $F_{DIM1}^{(1)}$ extends over the responding SPs in the given cell (level) of *DIM1*. An intermediate *DIM1*-adjusted weight was then calculated as

$$w_i^{DIM1} = w_i^{NR} F_{DIM1}^{(1)}.$$

Next, the w_i^{DIM1} 's calculated above were used to calculate an adjustment within each level of *DIM2* as follows:

$$F_{DIM2}^{(1)} = \frac{N_{DIM2}}{\sum_{i=1}^n w_i^{DIM1}}$$

where N_{DIM2} is the March 1994 CPS control total for the given level of *DIM2* and where the denominator of $F_{DIM2}^{(1)}$ extends over the responding SPs in the given cell (level) of *DIM2*. An intermediate *DIM2*-adjusted weight was then calculated as

$$w_i^{DIM2} = w_i^{DIM1} F_{DIM2}^{(1)}.$$

The w_i^{DIM2} 's were then used to calculate an intermediate *DIM3*-adjusted weight, w_i^{DIM3} , using procedures analogous to those described above. This procedure continued up to the last raking variable, *DIM13* (or *DIM14*, depending on the ARS subset), using the previously adjusted intermediate weights.

Using the weights developed from the previous iteration, the whole process was then repeated starting with *DIM1* and continuing through *DIM13* (or *DIM14*). The iteration process continued until the difference between the calculated weighted sums and the corresponding CPS totals was acceptably small for *all* levels of each raking variable (i.e., within 0.005% of the corresponding CPS totals for each level of each raking variable).

Table 5-13 summarizes the final weighted counts of Day 1 Intake respondents by sex and age group. Table 5-14 summarizes the corresponding final weighted counts of DHKS respondents by sex and age group. The tables also show the corresponding weighted counts using the nonresponse-adjusted (pre-raked) weights and the coefficients of variation of the weights. The coefficient of variation of the weights, c_w , is defined as $c_w = s_w / \bar{w}$, where \bar{w} and s_w are the (unweighted) mean and standard deviation of the weights, respectively. The coefficient of variation of the weights is informative because $1 + (c_w/100)^2$ represents the increase in the variance of survey estimates resulting from the variation in weights.

Table 5-13. Weighted counts of Day 1 Intake respondents and coefficient of variation of weights by sex and age

Sex (as reported in Intake interview)	Age group (based on response in Intake interview)	ARS subset	Number of completed Day 1 Intakes	Weighted count of respondents using NR-adjusted weights	Coefficient of variation of NR weights (%)	Weighted count of respondents using final (raked) weights	Coefficient of variation of final weights (%)
Male	less than 1 year	3	58	1,239,492	61.58	1,714,220	63.96
	1-2 years	3	253	3,266,390	11.94	4,523,747	25.58
	3-5 years	3	299	5,644,612	23.31	6,258,218	39.26
	6-11 years	4	254	9,938,185	35.77	11,860,822	40.71
	12-19 years	4	286	14,157,596	42.35	14,775,578	46.55
	20-29 years	1	268	14,001,961	38.61	18,393,401	50.90
	30-39 years	1	311	19,807,733	54.23	22,526,953	59.02
	40-49 years	1	304	14,512,544	41.53	17,154,007	49.77
	50-59 years	1	266	9,403,096	36.65	12,073,161	48.29
	60-69 years	1	244	7,877,281	40.00	8,951,750	47.14
	70+ years	1	256	6,943,331	18.38	8,565,165	38.15
Female	less than 1 year	3	69	1,441,727	59.91	1,911,695	65.54
	1-2 years	3	245	3,136,634	7.98	4,050,853	26.34
	3-5 years	3	303	5,655,346	9.22	5,981,561	24.18
	6-11 years	4	260	9,595,325	25.46	11,296,815	37.81
	12-19 years	4	271	12,871,005	31.98	14,268,098	41.46
	20-29 years	2	272	16,134,454	45.48	18,543,867	45.37
	30-39 years	2	294	20,908,011	46.33	22,877,985	56.91
	40-49 years	2	301	15,895,435	44.89	17,169,550	44.30
	50-59 years	2	290	11,221,390	31.43	13,388,387	38.31
	60-69 years	2	244	9,846,611	32.15	11,106,847	31.20
	70+ years	2	241	10,224,641	8.96	12,114,574	30.54
Total			5,589	223,722,799		259,507,254	

Table 5-14. Weighted counts of DHKS respondents and coefficient of variation of weights by sex and age

Sex (as reported in Intake interview)	Age group (based on response in Intake interview)	ARS subset	Number of completed DHKS interviews	Weighted count of DHKS respondents using NR-adjusted weights	Coefficient of variation of NR weights (%)	Weighted count of DHKS respondents using final (raked) weights	Coefficient of variation of final weights (%)
Male	20-29 years	1	132	14,518,360	59.85	19,195,165	82.76
	30-39 years	1	172	18,420,256	66.39	21,725,183	79.03
	40-49 years	1	176	13,894,199	62.71	16,959,001	76.93
	50-59 years	1	151	9,039,473	58.12	12,268,167	79.31
	60-69 years	1	141	7,905,986	57.63	9,887,919	64.69
	70+ years	1	130	5,712,345	46.45	7,629,001	62.20
Female	20-29 years	2	140	16,098,892	51.37	17,720,158	55.44
	30-39 years	2	178	22,605,919	78.83	23,701,679	103.09
	40-49 years	2	171	15,934,033	59.45	16,510,699	64.59
	50-59 years	2	185	12,203,702	56.27	14,047,247	63.18
	60-69 years	2	150	10,298,377	49.54	11,746,325	45.92
	70+ years	2	153	10,314,125	45.45	11,475,101	51.50
Total			1,879	156,945,667		182,865,646	

Finally, note that the age groupings given in Tables 5-13 and 5-14 do not coincide with those used in the raking process (see Appendix 2.C). As a result, the weighted counts shown in these tables may differ from the corresponding CPS totals. However, within the broad age groupings used in weighting, the final weighted counts agree with the corresponding CPS population totals (to within $\pm 0.005\%$).

5.4 Generating Replicate Weights for Computation of Sampling Errors

To facilitate the computation of sampling errors, a set of "jackknife" replicate weights was constructed and attached to each data record. Separate sets of replicate weights were created for the Day 1 Intake and DHKS data sets. Under the jackknife replication method, a prescribed number of subsamples (called jackknife replicates) were generated from the full sample, and the entire weighting process as described in the previous sections was repeated for each replicate. In this way, a series of

replicate weights were generated for each data record, which together with the full-sample weight can be used to calculate sampling errors (see Section 6.3).

The approach used to construct the jackknife replicates was as follows. First, 19 variance estimation strata were formed from the 38 noncertainty PSUs by pairing adjacent PSUs in the sampling frame. Each PSU within a variance estimation stratum defined what is referred to as a variance estimation unit (VEU). Next, within each of the 24 certainty PSUs, one-half of the segments (selected systematically from a list that maintained the original sort order) were assigned to one VEU and the remaining one-half to another. Because each certainty PSU was considered to be a separate variance estimation stratum, a total of 43 variance estimation strata were created by this process. A jackknife replicate was then created by dropping out one VEU from one of the variance estimation strata and doubling the weight of the other VEU in that stratum. The 43 jackknife replicates were created by applying this process to each of the 43 variance estimation strata. By repeating the weight calculations for each replicate, a total of 43 final replicate weights were generated for each data record (SP).

Table 5-15 summarizes the number of cases included in each jackknife replicate for selected subsets of the sample. Section 6.3 discusses the use of these jackknife replicates for variance estimation and provides some illustrative variance calculations.

Table 5-15. Sample sizes by jackknife replicate and subset

Jackknife replicate	SPs completing Day 1 Intake	Males 20+ years of age completing Day 1 Intake	Females 20+ years completing Day 1 Intake	Children 0-5 years completing Day 1 Intake	Persons 6-19 years completing Day 1 Intake	Males 20+ years completing DHKS	Females 20+ years completing DHKS
1	5,488	1,615	1,615	1,205	1,053	887	955
2	5,501	1,615	1,614	1,208	1,064	880	963
3	5,511	1,619	1,618	1,215	1,059	882	963
4	5,447	1,617	1,609	1,185	1,036	886	957
5	5,498	1,625	1,617	1,202	1,054	888	959
6	5,488	1,622	1,604	1,216	1,046	892	946
7	5,454	1,617	1,602	1,195	1,040	882	954
8	5,490	1,620	1,610	1,204	1,056	891	962
9	5,477	1,609	1,597	1,212	1,059	884	947
10	5,496	1,616	1,613	1,208	1,059	884	963
11	5,491	1,619	1,613	1,209	1,050	885	960
12	5,477	1,620	1,613	1,202	1,042	889	963
13	5,489	1,619	1,612	1,205	1,053	882	962
14	5,493	1,626	1,604	1,201	1,062	889	951
15	5,487	1,611	1,609	1,218	1,049	880	957
16	5,488	1,610	1,610	1,211	1,057	883	952
17	5,491	1,615	1,611	1,211	1,054	884	956
18	5,479	1,617	1,606	1,209	1,047	885	959
19	5,441	1,602	1,602	1,198	1,039	876	961
20	5,544	1,634	1,628	1,218	1,064	892	967
21	5,568	1,640	1,635	1,225	1,068	899	975
22	5,550	1,637	1,629	1,216	1,068	896	970
23	5,569	1,645	1,637	1,221	1,066	899	973
24	5,568	1,640	1,634	1,227	1,067	899	972
25	5,579	1,647	1,637	1,224	1,071	902	973
26	5,525	1,638	1,621	1,204	1,062	894	964
27	5,558	1,640	1,634	1,218	1,066	896	972
28	5,560	1,640	1,635	1,220	1,065	900	972
29	5,574	1,642	1,637	1,224	1,071	896	975
30	5,566	1,645	1,635	1,220	1,066	899	972
31	5,550	1,636	1,632	1,220	1,062	892	972
32	5,568	1,641	1,636	1,222	1,069	898	975
33	5,555	1,641	1,630	1,220	1,064	897	969
34	5,550	1,640	1,633	1,212	1,065	898	971
35	5,572	1,646	1,635	1,224	1,067	901	971
36	5,548	1,632	1,633	1,220	1,063	895	973
37	5,567	1,645	1,640	1,216	1,066	900	976
38	5,564	1,639	1,634	1,222	1,069	897	975
39	5,568	1,644	1,637	1,218	1,069	898	975
40	5,564	1,643	1,635	1,220	1,066	899	976
41	5,544	1,630	1,631	1,218	1,065	893	970
42	5,534	1,636	1,631	1,213	1,054	896	970
43	5,530	1,633	1,624	1,217	1,056	892	967
Total sample	5,589	1,649	1,642	1,227	1,071	902	977

6. FACTORS INFLUENCING STATISTICAL INFERENCES

The following sections discuss some of the factors that will affect the ability to make valid inferences from the data for the Continuing Survey of Food Intakes by Individuals and the Diet and Health Knowledge Survey (CSFII/DHKS). First, Section 6.1 defines the population of inference. Each year's sample is intended to provide a cross-section of the resident population in the United States living in households. Section 6.2 discusses the need to use sampling weights in analysis to compensate for the variable rates with which sample persons (SPs) were drawn into the sample. Section 6.3 describes a method that can be used to calculate the sampling errors needed to properly interpret the survey results.

6.1 Population of Inference

In general, the population of inference for any given study year of the CSFII/DHKS consists of noninstitutionalized persons residing in the United States. Excluded from the sample are institutionalized individuals such as those in prisons, juvenile facilities, and nursing homes. Also excluded from the sample are persons living in group quarters (e.g., rooming houses), persons residing on military installations, and homeless persons.

Although the above definition is conceptually straightforward, special rules were required in a few unusual circumstances to establish "eligibility" for weighting and analytic purposes. These rules included the following:

- SPs who became institutionalized, died, or moved out of the country before the completion of a particular interview were considered to be ineligible for that interview.
- SPs identified during screening who moved within the United States before the first Intake interview and who could not be successfully traced and interviewed were considered to be (eligible) survey nonrespondents.
- An attempt was made to contact by telephone SPs who moved after completing the Day 1 Intake interview. If the Day 2 Intake interview was not obtained, the SP was considered to be an eligible nonrespondent for the combined Day 1 and Day 2 Intake interviews but a respondent for the Day 1 Intake interview.

- SPs selected for the DHKS who later died, became institutionalized, or moved out of the country before completing the DHKS were treated as ineligible for the DHKS.

6.2 The Use of Weights in Analysis

Because the CSFII/DHKS sample is based on a complex, multistage area probability design in which SPs were selected at rates that varied by sex, age, and income level, weights are generally required for the analysis of the survey results. As described in Chapter 5, these weights reflect the variable sampling rates used to select the CSFII/DHKS sample and include adjustments to compensate for differential nonresponse rates and undercoverage. Two sets of weights have been calculated for the CSFII/DHKS 1994, including one set of weights for the Day 1 Intake data set and another for the DHKS data set. Note that these two sets of weights were not designed for analyzing either the combined Day 1 and Day 2 Intake data set or the Household Questionnaire data set.

The weights have the property that they sum to the March 1994 Current Population Survey population estimates by sex, age, Census region, income level, and other variables (see Section 5.3). Thus, estimates of means (e.g., mean saturated fat intake) should be calculated as a weighted mean of the form

$$\bar{y} = \frac{\sum_{i=1}^n w_i y_i}{\sum_{i=1}^n w_i},$$

where w_i is the final weight for the i -th SP and y_i is the corresponding value of the survey item of interest. Similarly, estimates of ratios, proportions, correlations, or other population quantities should be computed on a weighted, rather than unweighted, basis. In most cases, use of the unweighted survey results may lead to misleading or invalid inferences.

6.3 Variance Estimation

Estimates derived from the CSFII/DHKS 1994 sample are subject to sampling error because only a small fraction of the target population was selected for the survey. However, probability sampling techniques make it possible to estimate the sampling error directly from the survey results. These sampling errors can be expressed either as standard errors or coefficients of variation (CVs, the ratio of the standard error to the estimate) or as confidence bounds around the estimate.

For the CSFII/DHKS, a method of jackknife replication can be used to calculate the sampling errors of the survey-based estimates. Under the jackknife replication method, a specified number of subsamples of the full sample (i.e., replicates) are created for which the statistic of interest is recalculated. The variability of the replicate estimates is then used to obtain the variance of the statistic. The advantage of the replication methods is that they preclude the need to specify complicated variance formulas.¹ The way in which the required jackknife replicates were created for the CSFII/DHKS 1994 is described in Section 5.4. In particular, it should be noted that the replicates were designed to reflect the stratification and clustering used in the CSFII/DHKS sample design.

To illustrate how the sampling errors can be calculated, let \bar{y} denote a weighted survey estimate (e.g., mean saturated fat intake per person or mean calories per meal). Further, let $\bar{y}_{(j)}$ be the corresponding estimate for jackknife replicate j . The estimated variance of \bar{y} is then given by the formula

$$\text{var}(\bar{y}) = \sum_{j=1}^K (\bar{y}_{(j)} - \bar{y})^2,$$

where the summation extends over all K jackknife replicates. The corresponding approximate 95 percent confidence limits around the estimate are given by

$$\bar{y} \pm 1.96\sqrt{\text{var}(\bar{y})}.$$

¹ See, for example, P. McCarthy, (1966), Replication: An Approach to the Analysis of Data from Complex Surveys, *Vital and Health Statistics*, Series 2, No. 14, Washington, DC, U.S. Department of Health, Education and Welfare.

To implement the jackknife replication method, the set of replicate weights described in Section 5.4 has been attached to each record in the data file. Together with the full-sample weight, the replicate-based sampling errors can then be computed using, for example, Westat's variance estimation program, WESVAR.² WESVAR is a user-written SAS procedure that computes weighted survey estimates and their associated sampling errors. In addition to providing confidence intervals for sample-based estimates, WESVAR performs "modified" chi-square tests of independence in weighted two-way tables using estimated design effects. The modified chi-square methods used in WESVAR include the method proposed by Fellegi³ and two methods described by Rao and Scott.^{4,5}

To illustrate the use of the jackknife replicate weights for calculating sampling errors and to provide some numerical results for checking purposes, some illustrative standard error calculations are summarized in Table 6-1. The standard errors shown in the table were calculated by WESVAR using the variance-estimation formulas presented previously. The standard errors and CVs shown in the table are not intended to represent the levels of precision to be expected for the Main Survey estimates from the CSFII/DHKS, but rather to serve as a rough check of the proper use of the replicate weights for variance estimation.

Alternatively, Taylor series linearization methods can be used for variance estimation. For example, the commercially available software package SUDAAN can be used for this purpose.⁶ For complex survey samples such as the CSFII/DHKS sample, the SUDAAN software requires that an appropriate "stratum" and "PSU" code be available for each record in the data file. In the CSFII/DHKS data file, the stratum and PSU codes to be used for this purpose are VARSTRAT and VARUNIT, respectively.

² Westat, Inc. (1993). *The WESVAR SAS Procedure*. Rockville, MD: Westat, Inc.

³ I. Fellegi. (1980). Approximate Tests of Independence and Goodness of Fit Based on Stratified Multistage Samples. *Journal of the American Statistical Association*, 71, 665-670.

⁴ J. Rao and A. Scott. (1981). The Analysis of Categorical Data from Complex Sample Surveys: Chi-Squared Tests for Goodness of Fit and Independence in Two Way Tables. *Journal of the American Statistical Association*, 76, 221-230.

⁵ J. Rao and A. Scott. (1984). On Chi-Squared Tests for Multiway Contingency Tables with Cell Proportions Estimated from Survey Data. *Annals of Statistics*, 12, 46-60.

⁶ B. Shah, R. Folsom, L. LaVange, S. Wheelless, K. Boyle, and R. Williams. (1993). *Statistical Methods and Mathematical Algorithms Used in SUDAAN*. Research Triangle Park, NC: Research Triangle Institute.

Table 6-1. Illustrative estimates and jackknifed standard errors for selected statistics

ARS subset	Data set	Statistic	Income (as % of poverty) subdomain	Sample size	Estimate	Standard error	CV of estimate
Males 20+ years	Day 1	Proportion of persons in homes owned by household	Under 75 %	156	0.29	0.0516	18.0 %
			101-130 %	128	0.49	0.0885	18.2 %
			301-500 %	370	0.77	0.0269	3.5 %
Females 20+ years	Day 1	Average age	76-100 %	100	42.18	1.9890	4.7 %
			131-300 %	540	45.97	0.6272	1.4 %
			501+ %	355	45.98	0.7484	1.6 %
		Proportion of persons in homes owned by household	Under 75 %	197	0.21	0.0319	15.2 %
			101-130 %	124	0.50	0.0564	11.4 %
			301-500 %	373	0.83	0.0224	2.7 %
Children 0-5 years	Day 1	Average age	76-100 %	93	50.84	2.6897	5.3 %
			131-300 %	549	47.29	0.8234	1.7 %
			501+ %	306	46.36	0.7451	1.6 %
		Proportion of persons in homes owned by household	Under 75 %	255	0.14	0.0263	19.5 %
			101-130 %	102	0.39	0.0613	15.5 %
			301-500 %	239	0.84	0.0354	4.2 %
Persons 6-19 years	Day 1	Average age	76-100 %	73	2.48	0.1642	6.6 %
			131-300 %	435	2.60	0.0865	3.3 %
			501+ %	123	2.55	0.1622	6.4 %
		Proportion of persons in homes owned by household	Under 75 %	173	0.17	0.0364	21.5 %
			101-130 %	73	0.40	0.0843	21.3 %
			301-500 %	218	0.94	0.0185	2.0 %
Males 20+ years	DHKS	Average age	76-100 %	51	13.25	0.5219	3.9 %
			131-300 %	407	12.00	0.2328	1.9 %
			501+ %	149	13.18	0.3173	2.4 %
		Proportion of persons in homes owned by household	Under 75 %	86	0.27	0.0683	25.3 %
			101-130 %	81	0.48	0.0739	15.5 %
			301-500 %	199	0.77	0.0294	3.8 %
Females 20+ years	DHKS	Proportion of persons in homes owned by household	Under 75 %	146	0.20	0.0397	19.5 %
			101-130 %	75	0.50	0.0825	16.7 %
			301-500 %	215	0.85	0.0278	3.3 %

2.A Selected Procedural Memos Relevant to Sampling

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MEMORANDUM

940602
Memo #22

TO: J. Edmonds
cc: M. Berlin, R. Slobasky, CSFII Project File

FROM: Valerija Smith, G. Kalton, A. Chu *cc*

SUBJECT: Sampling Strategy for Selecting Segments for the CSFII Pilot Study

DATE: November 24, 1992 (Revised 12/9/92)

For the CSFII pilot study, a sample of 4 area segments will be selected from each of 10 purposively selected PSUs. Subject to HNIS approval, the 10 PSUs are those given G. Kalton's memo #13. Since the contract specifies that the pilot segments must be different from those to be selected for the main study, we will first select the segments for the main study using a Keyfitz type procedure to maximize overlap with the NALS segments, and then select the pilot sample from the remaining segments in the 10 PSUs.¹ The specifications given below are for selecting the segments for the main study. Specifications for drawing the pilot sample segments will be given later.

For the main study, 36 segments will be selected from each sample PSU. The procedures to be used to select these segments in each of the 10 pilot PSUs are as follows:

For a given PSU, let p_i be the probability of selecting segment i in the PSU for NALS, and let P_i be the corresponding desired probability of selecting the segment for the CSFII main study. Specifically,

$$p_i = \frac{W_{\text{PSU}} M_i^{\text{NALS}}}{I_{\text{Prim}}}$$

and

$$P_i = \frac{36 M_i^{\text{CSFII}}}{\sum_{i=1}^N M_i^{\text{CSFII}}}$$

where

$$W_{\text{PSU}} = \text{the reciprocal of the probability of selecting the PSU;}$$

¹In addition to the selected CSFII segments, any other segments in NALS (either primary or reserve) will be ineligible for selection for the pilot study.

- M_i^{NALS} = the NALS measure of size for segment i;
- I_{prim} = the sampling interval for selecting the primary NALS sample;
- M_i^{CFSII} = sampling measure of size for segment i for CSFII
- = the maximum of 60 and the number of housing units in segment i;
- $\sum_{i=1}^N M_i^{CFSII}$ = the total CSFII measure of size for the PSU.

Within a PSU, divide the segments into 4 classes and define the probability of retaining the segment in the CSFII sample as specified below.

<u>CLASS</u>		<u>Probability of retention</u>
A	Segment in primary NALS sample, $P_i \geq p_i$	1
B	Segment in primary NALS sample, $P_i < p_i$	P_i/p_i
C	Segment not in primary NALS sample, $P_i \geq p_i$	$(P_i - p_i)/(1 - p_i)$
D	Segment not in primary NALS sample, $P_i < p_i$	0

Note that if a segment was selected for the primary NALS sample and $P_i \geq p_i$ (class A), then this segment should be retained in the CSFII sample with conditional certainty. Therefore, select all segments in class A for CSFII. Let a be the number of segments in class A.

Next, from class B and C combined, select an additional (36 - a) segments as follows:

Let M be the sum of the probabilities of retention, summed across all segments in classes B and C. Sort the file of segments in the original NALS selection order, and select the (36 - a) segments systematically and with probabilities proportionate to the probability of retention, using a sampling interval of $M/(36 - a)$. Use the WESSAMP sampling macro to make the selections. Produce the standard outputs for checking and documentation purposes.

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MEMORANDUM

To: Debby Vivari ✓
cc: A. Chu, G. Kalton, M. Berlin, CSFII Project File

From: V. Smith

Subject: Selection of segments for the CSFII main study

Date: June 14, 1993

Version: 3

940602
Memo # 87

The sample of segments for the CSFII main study will be selected from Westat's 62-PSU master sample. We understand that to allow sufficient time to prepare the segment maps, the sample of segments must be selected and verified by June 30, 1993. The algorithm to be used to select the sample is given in project memo #22. A copy of memo #22 is attached for reference.

In the course of selecting the segments for the pilot test, we have already selected the segments for the main study in 4 of the 10 pilot PSUs. These are PSUs A106, A203, A302, and A412. To select the segments from the remaining 58 PSUs, use the algorithm given in attached memo #22. Note that 36 segments will be selected from each PSU, including all segments in "class A" as defined in memo #22. The "class A" segments are those to be retained within certainty. Prior to sample selection, the remaining segments (the class B and C segments) will be sorted in the original NALS selection order. The measure of size to be used in the selection of segments is a function of the retention probabilities required to maximize the overlap with the segments selected for NALS (see memo # 22).

Assignment of segments to study years and quarters

Once the segments are sampled, number the selected segments in each PSU from 1 to 36. The numbering of segments should follow the original NALS selection order irrespective of the class A, B, and C designations used to select the CSFII segments. Then use the following Table 1 to assign the segments from each PSU to one of 12 "segment groups." A segment group is simply a subset of three CSFII segments. For example, in a given PSU, segment group 1 consists of ordered segments 1, 25, 24. Segment group 2 consists of ordered segments 3, 27 and 22, and so on up to segment group 12 which consists of ordered segments 23, 26, and 2. Note that the definition of the segment groups given in Table 1 applies to all 62 PSUs.

Next, generate a random permutation of the integers 1, 2, 3. This should be done separately for each of the 62 PSUs. Let A, B, and C denote the permuted integers.¹ Similarly, generate a random permutation of the integers 1, 2, 3, and 4 (e.g., using the algorithm specified previously for A, B, and C), and denote the permuted integers by Q, R, S, and T. Assign the 12 segment groups to one of the three study years A, B, or C, and quarters Q, R, S, and T as indicated in Table 1. For example, suppose that for a particular PSU, A = 2, B = 1, and C = 3. Then according to Table 1, segment groups 2, 5, 8, and 11 should be assigned to year 1; segment groups 1, 4, 7, and 10 should be assigned to year 2; and segment groups 3, 6, 9, and 12 should be assigned to year 3. Similarly, if Q = 3, R = 1, S = 4, and T = 2, then segment groups 1, 2, and 3 should be assigned to quarter 3, segment groups 4, 5, and 6 should be assigned to quarter 1, and so on.

Check tables

After the segments are selected, produce a frequency table showing counts of segments by NALS-selection status (i.e., included in NALS primary sample or not), separately by PSU and year/quarter.

Table 1. Assignment of ordered segments to segment groups, years, and quarters

Segment group	Ordered CSFII segment number in PSU			Year	Quarter
1	1	25	24	A	Q
2	3	27	22	B	Q
3	5	29	20	C	Q
4	7	31	18	A	R
5	9	33	16	B	R
6	11	35	14	C	R
7	13	36	12	A	S
8	15	34	10	B	S
9	17	32	8	C	S
10	19	30	6	A	T
11	21	28	4	B	T
12	23	26	2	C	T

¹One way of permuting the integers is the following: Assign a uniform random number, U_i , to the integers 1, 2, and 3 to form the pairs (1, U_1), (2, U_2), and (3, U_3). Then sort the pairs by U_i . Set A equal to the integer corresponding to the first sorted pair. Set B equal to the integer corresponding to the second sorted pair. Set C equal to the integer corresponding to the third sorted pair. Note that this algorithm should be applied independently for each PSU.

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MEMORANDUM

940609

Memo #101

To: M. Berlin
cc: J Waksberg, G. Kalton, V. Smith, D. Vivari,
CSFII Project File ✓

From: A. Chu *ac*

Subject: Procedures for selecting the sample of households for CSFII

Date: July 13, 1993

A total of 33,352 housing units ("line numbers") in 2,232 segments will be selected for the CSFII. A third of the 2,232 sample segments will be randomly allocated to each of the three years of the study. This translates to 744 segments per year, and about 15 housing units per segment. Of the 2,232 segments to be selected for CSFII, we have estimated that about 1,300 will be previously-listed NALS segments. Outlined below are the procedures to be used to select the sample of housing units for CSFII.

Calculation of Overall Sampling Rate, f

For the first year of data collection, the overall sampling rate for selecting housing units is given by $f = \frac{11,120}{N}$, where N is the estimated number of housing units in the nation. N will be calculated as:

$$N = \sum_{h=1}^{62} \left(\frac{1}{P_h} \right) \sum_{j=1}^{12} \left(\frac{N_{hj}^L}{P_{j|h}} \right)$$

where P_h is the probability of selecting PSU h , N_{hj}^L is the number of listed housing units in segment j in PSU h , and $P_{j|h}$ is the conditional probability of selecting segment j in PSU h for the first year of the study. For the NALS segments, the N_{hj}^L 's refer to the numbers of housing units originally listed for NALS (i.e., not including new or missed structures added through the "missed structures" procedure).

Selection of Households in non-NALS Segments

At the completion of the listing operation, let N_{hj}^L be the number of housing units that are listed in segment j in PSU h . The N_{hj}^L housing units in the segment will be subsampled with equal probabilities at a rate of

$$f_{hj}^{(w)} = \frac{f}{P_h P_{j|h}}.$$

The overall sampling rate is $P_h P_{j|h} f_{hj}^{(w)} = f$.

Selection of Households in NALS Segments

Let N_{hj}^L be the number of housing units that were originally listed for NALS in segment j in PSU h . For the NALS segments, the count N_{hj}^L should not include any structures or dwelling units that were added as a result of the "missed structure" or "missed DU" procedures.

Of the N_{hj}^L housing units in the segment that were originally listed, the n_{hj}^{NALS} housing units that were selected for NALS will be identified and excluded from the sampling process. The remaining $N_{hj}^L - n_{hj}^{NALS}$ housing units will then be subsampled at a rate of

$$f_{hj}^{(w)} = \frac{f}{P_h P_{j|h} \left(\frac{N_{hj}^L - n_{hj}^{NALS}}{N_{hj}^L} \right)}.$$

where $\left(\frac{N_{hj}^L - n_{hj}^{NALS}}{N_{hj}^L} \right)$ is the probability that a housing unit in the segment was not selected

for NALS. The overall sampling rate is $P_h P_{j|h} \left(\frac{N_{hj}^L - n_{hj}^{NALS}}{N_{hj}^L} \right) f_{hj}^{(w)} = f$.

Application of Missed-Structure Procedure for CSFII

A segment selected for CSFII will be updated through the missed-structure procedure if the first housing unit in the segment is included in the sample for CSFII. This rule applies to both the NALS and non-NALS segments. Since housing units previously selected for NALS will be excluded from the CSFII sample, a NALS segment that was designated for the missed-structure procedure in NALS will not be designated for the missed-structure procedure in CSFII. In effect, the updating work that was done previously for NALS will not be used to select the housing units for CSFII. No bias is introduced since new or missed housing units will still have their appropriate chances of selection through the missed structure procedure.

Treatment of Chunked Segments

In some cases, a NALS segment was so large that it was divided into a number of subareas (chunks) of approximately equal size. One subarea was then selected for listing. We anticipate that for some large non-NALS segments, similar chunking procedures will be needed. The sampling procedures described above will apply to these chunks with one exception. For the chunked segments, the P_{jth} defined above will be adjusted to reflect the conditional probability of selecting the subarea within the PSU.

Information Needed to Sample Housing Units for CSFII

The following information will be needed to select the samples of housing units for CSFII.

- (a) For each CSFII segment (both NALS and non-NALS), we will need (i) the probability of selecting the PSU in which the segment is located, (ii) the probability of selecting the segment within the PSU (i.e., CSFII selection probability corresponding to 36 segments per PSU), (iii) whether or not the segment was chunked, (iv) the conditional probability of selecting the chunk within the segment, if the segment was chunked, (v) the year and quarter to which the segment is assigned.
- (b) For each non-NALS segment, we will need (i) the number of housing units reported in the Census file, and (ii) the actual number of listed housing units.
- (c) For each NALS segment, we will need (i) the number of housing units reported in the Census file, and (ii) the final count of housing units originally listed for NALS (not including added structures or DUs).
- (d) For each NALS segment we will need (i) the count of housing units selected for NALS, and (ii) the list of line numbers selected for NALS.

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MEMORANDUM

TO: CSFII Project File ✓
cc: G. Kalton, V. Smith, M. Berlin

FROM: A. Chu *ac*

SUBJECT: Note on probability of selecting first DU in segment

DATE: July 20, 1993

940609
Memo #102

As part of Westat's listing QC procedures, we will apply the "missed structure" procedure to a sample segment if the first DU in the segment is selected for CSFII. For CSFII, we will exclude from sampling any DU previously selected for NALS.

Then, in a given NALS segment,

$$\begin{aligned} & \Pr\{\text{first DU in segment is selected for CSFII}\} \\ &= \Pr\{\text{first DU in segment is not selected for NALS}\} \\ & \quad \times \Pr\{\text{first DU is selected from the remaining non-NALS DUs}\} \\ &= \left(1 - \frac{n_{\text{NALS}}}{N}\right) \left(\frac{n_{\text{CSFII}}}{N - n_{\text{NALS}}}\right) \\ &= \frac{n_{\text{CSFII}}}{N}, \end{aligned}$$

where N is the number of DUs in the segment that were listed for NALS, n_{NALS} is number of DUs selected for NALS, and n_{CSFII} is the number DUs to be selected for CSFII. Note that N is the number of originally-listed NALS DUs, and does not include any additional DUs found as a result of the missed structures procedures, if applied.

Since $\frac{n_{\text{CSFII}}}{N}$ is the "desired" probability of selecting the first DU for CSFII, segments will be designated for the missed structure procedure at the appropriate rates.

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MEMORANDUM

940607
Memo #109

TO: Martha Berlin
cc: G. Kalton, V. Smith, J. Waksberg, CSFII project file ✓

FROM: A. Chu *ac*

SUBJECT: Modification of procedures for assigning households to income classes for sampling

DATE: August 18, 1993

In our Pilot Study draft evaluation report, we tentatively recommended using the Pilot Study procedures for assigning households to income classes in sampling for at least the first year of the Main Survey (i.e., Sampling Recommendation 3). However, we also stated that we would continue to reexamine these rules and make any additional changes if warranted. Upon further review of the Pilot Study results, it now appears desirable to modify the earlier rules for the Main Survey.

The rules established for the Pilot Study required the identification of "low-income" segments and "nonlow-income" segments. The rules for classifying a household into income classes was based on the characteristics of the members of the household, and depended on whether the segment was classified as low income or nonlow-income. The rules used in the Pilot Study are summarized below.

Rules Used in the Pilot Study

Rule 1 (applied to low-income segments)

If the household was in a low-income segment and income was not obtained in screening, the interviewer was instructed to determine whether there was a male age 18 or over in the household and one or more children under 18 years. If there was no male age 18 or over, but one or more children under 18, the household was treated as low income for sampling purposes. Otherwise, the household was treated as non-low-income.

Rule 2 (applied to non-low-income segments)

If the household was in a non-low-income segment and income was not obtained in screening, the interviewer was instructed to determine whether there was a male age 18 or over in the household and one or more children under 6 years. If there was no male age 18 or over, but one or more children under 6, the household was treated as low income for sampling purposes. Otherwise, the household was treated as non-low-income.

As it turned out, the need to apply the above rules in the Pilot Study was infrequent. Of the 552 occupied households in the screener sample, the screener question on income was required for 139 cases (or 25 percent of the occupied households), and of these, 128 answered the question on income. This left only 11 cases for which the above rules were required.

Based on the Pilot Study experience, we expect that relatively small numbers of cases will require such rules in the Main Survey. Consequently, it seems desirable to simplify procedures by employing a single rule that would be applicable in all cases. In particular, we propose that the following rule be used in the Main Survey.

Proposed Rule for Main Survey

If income is not obtained in screening, the interviewer will be instructed to determine whether there is a male age 18 or over in the household and one or more children under 6 years. If there is no male age 18 or over, but one or more children under 6, the household will be treated as low income for sampling purposes. Otherwise, the household will be treated as non-low-income.

Note that the proposed rule is simply Rule 2 as specified for the Pilot Study. Consequently, it is the rule that would have been applied in the majority of cases anyway (i.e., in the nonlow-income segments) if the Pilot Study rules were employed. Even in low-income segments, this rule will have a good chance of identifying low-income households.

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MEMORANDUM

940621
Memo #139

TO: Martha Berlin
cc: G. Kalton, R. Slobasky, V. Smith, CSFII Project File

FROM: A. Chu ^{ac}

SUBJECT: Projections of sample sizes to be expected in the CSFII Main Survey

DATE: October 29, 1993

The sample design for the CSFII is a multistage, stratified area probability sample. At the first stage of selection, a stratified sample of 62 primary sampling units composed of MSAs, individual counties, or groups of counties was selected with probabilities proportionate to 1990 population within strata defined by MSA status and Census region. At the second stage of selection, 36 area segments defined to be Census blocks or block groups were selected with probabilities proportionate to the number of housing units in the segment from each PSU. The 36 segments in each PSU were divided into three subsets of 12 segments each, and one subset was randomly assigned to each of the three years of CSFII. Thus, 744 area segments (out of the 2,232 area segments selected for the entire three-year study) were allocated to each year. Within each area segment, a comprehensive listing of housing units will be compiled and a random sample of households will be selected at rates designed to yield an overall self-weighting sample of households.

Following the procedures described in the Survey Operations Plan (SOP), the sampled households will then be randomly assigned one of a prescribed number of "sampling messages," where each sampling message specifies the individuals in the household to be included in the survey. In the CSFII Pilot Study, a set of 16 sampling messages was used to designate persons for inclusion in the survey (e.g., see Table 1-3 in Pilot Study Evaluation Report, October 1993). While these messages seemed to work well in the Pilot Study, the sample was too small to provide reliable projections of the sample sizes to be expected in the Main Survey for the 40 sex-age-income groups. Moreover, the original sampling rates used to construct the 16 sampling messages did not take account of the potential undercounting of certain individuals in area sampling designs. For example, analysis of the 1992 National Health Interview Survey (NHIS) national samples indicates that the NHIS coverage rate for the entire U. S. population was about 90 percent. It seemed desirable, therefore, to adjust the CSFII sampling rates to compensate for undercoverage, and then use these adjusted rates to revise the sampling messages.

Table 1 gives the revised sampling messages for the first year of CSFII based on this analysis. While we have reduced the maximum of 40 messages to 24, this is somewhat larger than the 16 messages used in the Pilot Study. However, we expect the 24 messages to provide a somewhat better ability to achieve the specified sample size targets by sex-age-income group. Also shown in Table 1 are the proportions of households to be

assigned to the various messages. Table 2 shows the corresponding projections of the sample sizes to be expected for all three years of the Main Survey by sex-age-income domain. Except for a few sex-age domains where the overall rates will yield more low-income persons than desired, the projections are the target sample sizes specified in the Survey Operations Plan.

The sample sizes for the Main Survey will depend on the percentage of households containing a sample person (SP), the average number of sample persons per eligible household, and the coverage rate of individuals in area samples. The percentage of households with SPs and the average number of SPs per eligible household are summarized in columns (4) and (7) of Table 3 by sampling message. They are national figures derived from the 1991 CPS public use data files. Column (7a) of Table 3 shows the corresponding expected numbers of SPs in eligible households assuming a coverage rate of 90 percent. If these national averages hold for CSFII sample, we would expect a sample of about 9,500 households in the first year of the Main Survey to yield about 3,000 completed household questionnaires and about 5,200 completed day 1 intake interviews. These projections assume a response rates of 85 percent for the household interviews and a response rate of 80 percent for the day 1 intake interviews. The 80 percent response rate assumed for day 1 intake interviews is somewhat lower than that achieved in the Pilot Study, but exceeds the requirements specified in the SOP.

In addition, our projections indicate that the initial sample of 9,500 households for the first year of CSFII will yield almost 2,000 completed DHKS interviews (assuming a 90 percent response rate for the DHKS).

Finally, we note that the assumptions used in the sample size projections (e.g., coverage and response rates) tend to be on the conservative side. If either the coverage rate or response rates in CSFII are higher than those assumed in this memo, the resulting sample sizes will exceed the specified targets. Also, the achieved sample sizes will be subject to considerable sampling variability; thus, further adjustment of sampling rates may be necessary for the second and third years of the study.

Table 1. Sampling messages for the CSFII Main Survey

Message number	Characteristics of persons to be included in sample				Proportion of households to be assigned message
	All-income males	Low-income males	All-income females	Low-income females	
1	1 to 2	50 to 59	1 to 2		0.1663
2	1 to 2	50 to 69	1 to 2		0.0527
3	1 to 2	40 to 69	1 to 2		0.0863
4	1 to 2	40 +	1 to 2		0.0111
5	1 to 5	40 +	1 to 5		0.0138
6	1 to 5	40 +	1 to 5	50 to 59	0.1215
7	1 to 5	40 +	1 to 5	40 to 59	0.0667
8	1 to 5, 70+	40 to 69	1 to 5	40 to 59	0.0223
9	1 to 5, 70+	20 to 69	1 to 5	40 to 69	0.0374
10	1 to 5, 60+	20 to 59	1 to 5	40 to 69	0.0429
11	1 to 5, 60+	6 to 59	1 to 5	40 to 69	0.0147
12	1 to 5, 50+	6 to 49	1 to 5	6 to 11, 40 to 69	0.0105
13	1 to 5, 50+	6 to 49	1 to 5, 60 to 69	6 to 19, 40 to 59	0.0073
14	1 to 5, 50+	6 to 49	1 to 11, 50 to 69	12 to 19, 40 to 49	0.0216
15	1 to 11, 50+	12 to 49	1 to 11, 50 +	12 to 19, 40 to 49	0.0249
16	1 to 11, 50+	12 to 49	1 to 11, 50 +	12 to 49	0.0339
17	1 to 11, 50+	12 to 49	1 to 19, 50 +	20 to 49	0.0093
18	1 to 19, 50+	20 to 49	1 to 19, 50 +	20 to 49	0.0093
19	1 to 19, 40+	20 to 39	1 to 19, 50 +	20 to 49	0.0218
20	1 to 19, 40+	20 to 39	1 to 19, 40 +	20 to 39	0.0155
21	1 to 29, 40+	30 to 39	1 to 19, 40 +	20 to 39	0.0062
22	1 to 29, 40+	30 to 39	1 to 29, 40 +	30 to 39	0.0058
23	1 +		1 to 29, 40 +	30 to 39	0.0245
24	1 +		1+		0.1735

Table 2. Expected sample sizes for all three years of CSFII

Sex	Age	Non-low-income	Low-income	Total
Male	1-2	487	234	721
	3-5	511	208	719
	6-11	512	209	721
	12-19	512	207	719
	20-29	586	208	794
	30-39	643	207	850
	40-49	643	207	850
	50-59	643	207	850
	60-69	643	207	850
	70+	586	207	793
<i>Subtotal</i>		5,766	2,101	7,867
Female	1-2	495	224	719
	3-5	510	213	723
	6-11	512	209	721
	12-19	512	207	719
	20-29	532	207	739
	30-39	586	208	794
	40-49	643	207	850
	50-59	651	207	858
	60-69	588	207	795
	70+	467	253	720
<i>Subtotal</i>		5,496	2,142	7,638
Total		11,262	4,243	15,505

Table 3. Projections of sample sizes for the first year of the Main Survey by sampling message

	(1) Number of households to be assigned to message	(2) Estimated number of nonvacant households	(3) Expected number of non-vacant households completing screener	(4) Proportion of households with sample person (SP)	(5) Expected number of screened households with SPs	(6) Expected number of completed household interviews	(7) Average number of SPs per household with SPs	(7a) Expected number of SPs in eligible households	(8) Expected number of SPs providing completed day 1 intake data	(9) Proportion of households with an SP that have a person eligible for DHKS	(10) Average number of infants under 1 year of age in households with an SP	(11) Expected number of completed DHKS interviews	(12) Expected number of infants under 1 year of age providing day 1 intake data
24	1,648	1,450	1,421	1.0000	1,421	1,208	2.56	3,275	2,620	1.00	0.04	1,020	44
23	233	205	201	0.9857	198	168	2.40	428	342	0.99	0.04	140	6
22	55	48	47	0.9444	45	38	2.31	93	75	0.90	0.04	29	1
21	60	53	52	0.9178	47	40	2.21	94	76	0.88	0.04	30	1
20	147	129	127	0.8612	109	93	2.17	213	171	0.84	0.04	66	3
19	207	182	179	0.8407	150	128	2.03	274	219	0.81	0.04	87	4
18	88	77	76	0.7901	60	51	1.97	106	85	0.68	0.04	30	2
17	88	77	76	0.7621	58	49	1.89	98	79	0.71	0.04	30	2
16	322	283	278	0.7208	200	170	1.86	335	268	0.75	0.04	108	6
15	237	209	204	0.7149	146	124	1.76	231	185	0.71	0.04	74	4
14	205	180	177	0.6131	108	92	1.69	165	132	0.71	0.04	55	4
13	69	61	60	0.5424	32	27	1.57	46	36	0.75	0.04	17	1
12	100	88	86	0.5126	44	38	1.41	56	45	0.74	0.05	23	2
11	140	123	121	0.4157	50	43	1.42	64	51	0.67	0.05	24	2
10	408	359	352	0.4065	143	122	1.29	166	133	0.69	0.05	71	6
9	355	312	306	0.3245	99	84	1.36	122	97	0.60	0.07	43	5
8	212	187	183	0.2926	53	45	1.25	60	48	0.49	0.07	19	3
7	635	559	548	0.2243	123	104	1.32	146	117	0.33	0.09	29	8
6	1,154	1,016	995	0.2141	213	181	1.29	247	198	0.29	0.09	44	15
5	131	115	113	0.2060	23	20	1.26	26	21	0.26	0.09	4	2
4	105	92	91	0.1269	11	10	1.07	11	9	0.41	0.08	3	1
3	820	722	707	0.1129	80	68	1.07	77	62	0.34	0.09	20	5
2	501	441	432	0.0993	43	36	1.06	41	33	0.23	0.09	7	3
1	1,580	1,390	1,363	0.0871	119	101	1.06	113	91	0.12	0.11	11	10
	9,500	8,360	8,193	0.4367	3,578	3,041	2.02	6,489	5,191			1,987	142

NOTES:

Column (2) = Column(1) times nonvacancy rate of 88 percent.

Column (3) = Column (2) times screener response rate of 98 percent.

Columns (4), (7), (9), and (10) are national estimates based on tabulations from the March 1991 CPS data files.

Column (5) = Column (3) times column (4).

Column (6) = Column (5) times household interview response rate of 85 percent.

Column (7a) = Column (5) times column (7) times coverage rate of 0.90.

Column (8) = Column (5) times column (7) times 80 percent response rate for day 1 intake data.

Column (11) = Column (5) times column (9) times 0.80 (target response rate for day 1 intake) times 90 percent response rate for DHKS.

Column (12) = Column (5) times column (10).

2.B List of 62 Primary Sampling Units and Selected Characteristics

List of 62 CSFII Primary Sampling Units and Selected Characteristics

PSU code	PSU name	PSU stratum code	1990 number of housing units	1980 population	1990 population	1990 white population	1990 Hispanic population	1988 per capita income	1990 percent black population	1990 percent Hispanic population	1990 PMSA code	PSU probability of selection	Census region code	1990 PSU stratum code	PSU weight
101	Boston MA	A101	1,510,420	3,662,888	3,783,817	3,331,834	186,652	22,254	6.1794	4.3866		1.000000	1	A101	1.0000
103	Springfield MA	B104	233,093	581,831	602,878	525,290	49,672	17,280	6.1109	7.8563		0.146618	1	B104	6.8205
104	Providence RI	B105	377,097	865,771	916,270	835,537	44,040	16,678	3.8706	4.3203		0.198107	1	B105	5.0478
105	Newport RI	C101	37,475	81,383	87,194	81,838	1,712	18,890	3.8948	1.8212		0.015490	1	C101	64.5592
106	Nassau/Suffolk NY	A102	927,609	2,605,813	2,609,212	2,305,434	165,238	23,898	7.4339	5.8979	5380	1.000000	1	A102	1.0000
107	Kings/Richmond NY	A113	1,013,397	2,583,057	2,679,641	1,400,592	492,650	15,377	33.6961	15.5129	5600	1.000000	1	A113	1.0000
108	New York/Queens NY	A114	1,537,817	3,319,610	3,439,134	1,996,419	767,750	24,279	21.8130	19.4681	5600	1.000000	1	A114	1.0000
109	Bronx/Putnam NY	A115	897,844	2,372,294	2,428,071	1,429,070	629,262	20,434	24.5838	22.2763	5600	1.000000	1	A115	1.0000
112	Bergen/Passaic NJ	B101	487,329	1,292,970	1,278,440	1,043,437	147,868	25,422	8.2998	10.7587	875	0.310106	1	B101	3.2247
115	Atlantic City NJ	B103	192,414	276,385	319,416	260,185	17,972	21,541	13.8997	5.1754		0.075888	1	B103	13.1773
116	Philadelphia Area PA/NJ	A106	1,907,150	4,716,559	4,856,881	3,717,175	173,980	18,540	19.1462	3.2430	6160	1.000000	1	A106	1.0000
118	Harrisburg PA	B106	241,489	556,242	587,986	536,738	10,239	15,704	6.7131	1.5815		0.142306	1	B106	7.0271
119	Pittsburg PA	B102	879,811	2,218,870	2,056,705	1,867,138	11,728	16,499	8.1870	0.5168	6280	0.491706	1	B102	2.0337
202	Youngstown/Warren OH	B206	198,448	531,350	492,619	432,024	7,400	14,249	11.1449	1.3899		0.120035	2	B206	8.3309
204	Cleveland OH	B201	758,984	1,898,825	1,831,122	1,435,768	33,921	18,163	19.4208	1.7377	1680	0.379150	2	B201	2.6375
205	Cincinnati OH/IN	B202	471,904	1,135,254	1,169,159	970,022	6,568	17,047	15.8321	0.5051	1640	0.246260	2	B202	4.0608
207	Detroit MI	A203	1,714,351	4,488,024	4,382,299	3,332,697	85,216	18,605	21.5293	1.8384	2160	1.000000	2	A203	1.0000
210	Gary/Hammond IN	B205	230,254	642,733	604,526	460,532	48,384	14,418	19.3775	7.7793	2960	0.129129	2	B205	7.7442
211	Chicago City IL	A211	1,133,039	3,005,072	2,783,726	1,263,524	545,852	18,454	39.0739	19.1331	1600	1.000000	2	A211	1.0000
212	Cook/Dupage/McHenry IL	A212	1,247,316	3,055,329	3,286,248	2,835,223	188,975	19,634	7.4616	5.6568	1600	1.000000	2	A212	1.0000
214	Knox/Mercer IL	C202	30,966	80,893	73,683	69,568	1,525	13,819	3.9222	1.9937		0.017258	2	C202	57.9450
215	Peoria IL	B204	136,458	365,864	339,172	309,325	3,642	15,934	7.4128	1.0290		0.073613	2	B204	13.5846
216	St. Louis Area MO/IL	A205	1,006,011	2,376,971	2,444,099	1,985,500	26,014	17,797	17.3144	0.9994		1.000000	2	A205	1.0000
217	Pike/Ralls MO	C204	10,894	26,552	24,445	23,345	133	12,011	4.0213	0.4909		0.003768	2	C204	173.3693
218	Howard/Saline MO	C203	14,058	34,921	33,154	30,811	253	13,234	6.2858	0.7329		0.007861	2	C203	127.2156
220	Minneapolis Area MN/WI	A204	988,735	2,137,133	2,464,124	2,270,360	37,448	19,371	3.6406	1.4300		1.000000	2	A204	1.0000
221	Iowa City IA	B203	37,210	81,717	96,119	89,649	1,435	16,561	2.0589	1.4534		0.022057	2	B203	45.3371
224	Cheyenne/Rooks KS	C201	11,550	26,837	23,293	23,007	134	15,518	0.6354	0.5667		0.005474	2	C201	182.6665
301	Washington DC/MD/VA	A306	1,556,749	3,250,921	3,923,574	2,577,933	224,786	23,224	26.5557	5.3491		1.000000	3	A306	1.0000
303	Baltimore MD	A302	938,979	2,199,497	2,382,172	1,709,309	30,160	19,119	25.8615	1.0950		1.000000	3	A302	1.0000
305	Charlottesville VA	B307	51,932	113,568	131,107	109,049	1,384	17,147	14.4119	1.0015		0.027293	3	B307	36.6401
306	Norfolk/Virginia Beach VA	B302	537,101	1,160,311	1,396,107	947,160	32,329	15,109	28.5145	2.0417		0.294005	3	B302	3.4013
307	Johnson City Area TN/VA	B309	183,995	433,638	436,047	424,751	1,690	12,439	2.0468	0.3816		0.088921	3	B309	11.2459
310	Greensboro/Winston-Salem NC	B305	399,004	851,444	942,091	747,835	7,096	16,606	19.3489	0.6801		0.208936	3	B305	4.7861
312	Fayetteville NC	B301	98,360	247,160	274,566	170,069	13,298	12,612	31.8670	4.3771		0.058353	3	B301	17.1372
313	Nashville TN	B306	410,968	850,505	985,026	818,424	7,665	16,265	15.4665	0.7153		0.200268	3	B306	4.9933
314	Chattanooga Area TN/GA	B308	181,276	426,540	433,210	370,586	2,539	14,273	13.4387	0.5427		0.091509	3	B308	10.9279
315	Atlanta GA	A301	1,174,007	2,138,143	2,333,511	2,020,017	57,169	18,394	25.9802	1.8589		1.000000	3	A301	1.0000
316	Greene/Lincoln GA	C301	17,053	37,987	23,404	23,404	262	11,846	40.5127	0.4597		0.008265	3	C301	120.9880
318	Tallahassee FL	B303	96,184	190,329	233,598	158,398	5,679	13,712	30.0632	2.2530		0.053781	3	B303	18.5940
321	Miami/Ft. Lauderdale FL	A305	1,399,948	2,643,766	3,192,582	2,438,598	1,061,846	18,313	18.5254	32.1588	JOIN	1.000000	3	A305	1.0000

list continues

PSU code	PSU name	PSU stratum code	1990 number of housing units	1980 population	1990 population	1990 white population	1990 Hispanic population	1988 per capita income	1990 percent black population	1990 percent Hispanic population	1990 PMSA code	PSU probability of selection	Census region code	1990 PSU stratum code	PSU weight
325	Franklin/Madison AR	C305	11,410	26,078	26,515	26,079	290	10,702	0.3847	1.0899		0.005200	3	C305	192.3220
326	Pope AR	C304	18,430	38,964	45,883	44,126	423	11,554	2.4606	0.9001		0.008975	3	C304	111.4268
329	Dallas TX	A303	1,072,830	1,957,430	2,553,362	1,854,577	368,884	18,620	16.0873	14.1296	1920	1.000000	3	A303	1.0000
330	Anderson TX	C302	16,909	38,381	48,024	33,354	3,953	11,165	23.2030	8.1230		0.010055	3	C302	99.4484
331	Austin TX	B304	343,886	536,693	781,572	600,023	159,942	15,331	9.2447	20.1279		0.165082	3	B304	6.0576
333	Houston TX	A304	1,355,821	2,734,617	3,301,937	2,188,370	707,536	16,192	18.5116	20.9923	3360	1.000000	3	A304	1.0000
334	Big Spring TX	C303	13,651	33,142	32,343	25,282	8,607	13,510	3.7875	26.4539		0.006367	3	C303	157.0481
401	Seattle WA	B403	831,285	1,607,618	1,972,961	1,713,068	54,993	19,667	4.1083	2.6988	7600	0.388604	4	B403	2.5733
402	Portland OR	B404	512,664	1,105,750	1,239,842	1,124,963	44,049	16,833	3.1210	3.4848	6440	0.277000	4	B404	3.6101
403	Missoula MT	C401	33,466	76,016	78,687	75,650	962	13,010	0.2351	1.2060		0.019195	4	C401	52.0965
404	Boise City ID	B405	80,849	173,125	205,775	198,888	5,556	15,911	0.4656	2.6835		0.044858	4	B405	22.2923
407	San Francisco/Oakland CA	A407	1,500,289	3,250,605	3,686,592	2,431,614	506,361	23,372	11.5641	13.3887	JOIN	1.000000	4	A407	1.0000
408	San Jose CA	B402	540,240	1,295,071	1,497,577	1,032,190	314,564	23,181	3.7535	20.7626	7400	0.349098	4	B402	2.8645
409	Merced CA	B401	58,410	134,557	178,403	120,280	58,107	12,782	4.7774	32.2153		0.043956	4	B401	22.7499
411	Riverside/San Bernardino CA	A404	1,026,179	1,558,215	2,588,793	1,930,095	686,096	15,677	6.8961	26.1396	6780	1.000000	4	A404	1.0000
412	Los Angeles City CA	A412	1,299,963	2,968,528	3,485,398	1,841,182	1,391,411	18,790	13.9919	38.9633	4480	1.000000	4	A412	1.0000
413	Los Angeles/Long Beach CA	A413	1,863,380	4,508,711	5,377,766	3,193,921	1,959,831	18,790	9.3961	35.9818	4480	1.000000	4	A413	1.0000
414	Anaheim/Santa Ana CA	A401	875,072	1,932,921	2,410,556	1,894,593	564,828	22,753	1.7706	23.2853	360	1.000000	4	A401	1.0000
415	San Diego CA	A406	946,240	1,861,846	2,498,016	1,872,256	510,781	17,576	6.3773	20.0708		1.000000	4	A406	1.0000
418	Phoenix AZ	A405	952,041	1,509,227	2,122,101	1,799,420	345,498	16,815	3.4992	16.1201		1.000000	4	A405	1.0000
420	Cibola/Valencia NM	C402	26,473	61,115	69,029	48,936	30,842	10,886	1.0010	44.5871		0.017134	4	C402	58.3643

**2.C Variables Used in Calibration Adjustments
and CPS Control Totals, by ARS Subset**

Attachment 2.C
Variables Used in Calibration Adjustments and
CPS Control Totals, by ARS Subset

ARS Subset 1 (males 20+ years old)

Comparison of Weighted CSFII and CPS Totals by Raking Variables

DIM1 (new)	PS_MSA (METRO)	CSFII sample size (Day 1 resp.)	Pre-raked CSFII estimate	CSFII percent	Final (post- raked) CSFII estimate	March 1994 CPS	CPS percent	Ratio CPS to CSFII
1	1 (MSA)	1,195	56,109,981	77.3%	69,090,994	69,090,997	78.8%	1.23
2	2 (non-MSA)	454	16,435,964	22.7%	18,573,444	18,573,440	21.2%	1.13
Total		1,649	72,545,945	100.0%	87,664,437	87,664,437	100.0%	1.21

DIM12 (new)	REGION	CSFII sample size (Day 1 resp.)	Pre-raked CSFII estimate	CSFII percent	Final (post- raked) CSFII estimate	March 1994 CPS	CPS percent	Ratio CPS to CSFII
1	1 Northeast	305	13,723,850	18.9%	17,566,643	17,566,644	20.0%	1.28
2	2 Midwest	390	16,516,345	22.8%	20,409,460	20,409,459	23.3%	1.24
3	3 South	579	26,339,398	36.3%	30,230,682	30,230,680	34.5%	1.15
4	4 West	375	15,966,352	22.0%	19,457,652	19,457,654	22.2%	1.22
Total		1,649	72,545,945	100.0%	87,664,437	87,664,437	100.0%	1.21

DIM2	KID5	KID17	CSFII sample size (Day 1 resp.)	Pre-raked CSFII estimate	CSFII percent	Final (post- raked) CSFII estimate	March 1994 CPS	CPS percent	Ratio CPS to CSFII
1	0 (no)	0 (no)	1,058	42,818,000	59.0%	53,526,325	53,526,302	61.1%	1.25
2	0 (no)	1 (yes)	323	15,852,860	21.9%	17,597,803	17,597,810	20.1%	1.11
3	1 (yes)	0 (no)	128	6,756,655	9.3%	8,680,536	8,680,549	9.9%	1.28
4	1 (yes)	1 (yes)	140	7,118,431	9.8%	7,859,773	7,859,777	9.0%	1.10
Total			1,649	72,545,945	100.0%	87,664,437	87,664,437	100.0%	1.21

DIM3	ADULT1	ADULT2	CSFII sample size (Day 1 resp.)	Pre-raked CSFII estimate	CSFII percent	Final (post- raked) CSFII estimate	March 1994 CPS	CPS percent	Ratio CPS to CSFII
1	0 (no)	0 (no)	412	18,245,932	25.2%	25,283,428	25,283,442	28.8%	1.39
2	0 (no)	1 (yes)	1,034	46,041,065	63.5%	52,305,908	52,305,892	59.7%	1.14
3	1 (yes)	0 (no)	203	8,258,948	11.4%	10,075,101	10,075,103	11.5%	1.22
Total			1,649	72,545,945	100.0%	87,664,437	87,664,437	100.0%	1.21

ARS Subset 1 (males 20+ years old)

Comparison of Weighted CSFII and CPS Totals by Raking Variables (Continued)

		CSFII sample size (Day 1 resp.)	Pre-raked CSFII estimate	CSFII percent	Final (post- raked) CSFII estimate	March 1994 CPS	CPS percent	Ratio CPS to CSFII
DIM4	FH40							
1	0 (no)	1,545	66,539,981	91.7 %	81,267,772	81,267,770	92.7 %	1.22
2	1 (yes)	104	6,005,964	8.3 %	6,396,666	6,396,667	7.3 %	1.07
Total		1,649	72,545,945	100.0 %	87,664,437	87,664,437	100.0 %	1.21

		CSFII sample size (Day 1 resp.)	Pre-raked CSFII estimate	CSFII percent	Final (post- raked) CSFII estimate	March 1994 CPS	CPS percent	Ratio CPS to CSFII
DIM5	HAVEJOB							
1	0 (no)	580	18,319,351	25.3 %	26,478,584	26,478,525	30.2 %	1.45
2	1 (yes)	1,069	54,226,594	74.7 %	61,185,853	61,185,912	69.8 %	1.13
Total		1,649	72,545,945	100.0 %	87,664,437	87,664,437	100.0 %	1.21

		CSFII sample size (Day 1 resp.)	Pre-raked CSFII estimate	CSFII percent	Final (post- raked) CSFII estimate	March 1994 CPS	CPS percent	Ratio CPS to CSFII
DIM6	POVGRP							
1	1 (0-75 %)	156	3,808,283	5.2 %	4,572,819	4,572,820	5.2 %	1.20
2	2 (76-130 %)	228	5,617,979	7.7 %	7,120,843	7,120,844	8.1 %	1.27
3	3 (131-300 %)	540	25,027,137	34.5 %	28,000,522	28,000,514	31.9 %	1.12
4	4 (301 % +)	725	38,092,547	52.5 %	47,970,253	47,970,259	54.7 %	1.26
Total		1,649	72,545,945	100.0 %	87,664,437	87,664,437	100.0 %	1.21

		CSFII sample size (Day 1 resp.)	Pre-raked CSFII estimate	CSFII percent	Final (post- raked) CSFII estimate	March 1994 CPS	CPS percent	Ratio CPS to CSFII
DIM7	STAMP12							
1	0 (no)	1,510	68,726,357	94.7 %	82,025,630	82,025,625	93.6 %	1.19
2	1 (yes)	139	3,819,588	5.3 %	5,638,807	5,638,812	6.4 %	1.48
Total		1,649	72,545,945	100.0 %	87,664,437	87,664,437	100.0 %	1.21

			CSFII sample size (Day 1 resp.)	Pre-raked CSFII estimate	CSFII percent	Final (post- raked) CSFII estimate	March 1994 CPS	CPS percent	Ratio CPS to CSFII
DIM8	OWNHOME	AGEGRP							
1	0 (no)	5&6 (20-39)	274	13,767,341	19.0 %	17,768,206	17,768,207	20.3 %	1.29
2	0 (no)	7 (40-59)	136	4,489,494	6.2 %	6,556,230	6,556,231	7.5 %	1.46
3	0 (no)	8&9 (60+)	71	1,849,771	2.5 %	2,669,630	2,669,630	3.0 %	1.44
4	1 (yes)	5&6 (20-39)	305	20,042,354	27.6 %	23,152,149	23,152,149	26.4 %	1.16
5	1 (yes)	7 (40-59)	434	19,426,146	26.8 %	22,670,938	22,670,937	25.9 %	1.17
6	1 (yes)	8&9 (60+)	429	12,970,841	17.9 %	14,847,285	14,847,284	16.9 %	1.14
Total			1,649	72,545,945	100.0 %	87,664,437	87,664,437	100.0 %	1.21

ARS Subset 1 (males 20+ years old)
Comparison of Weighted CSFII and CPS Totals by Raking Variables (Continued)

DIM9 (new)	BLACK	CSFII sample size (Day 1 resp.)	Pre-raked CSFII estimate	CSFII percent	Final (post- raked) CSFII estimate	March 1994 CPS	CPS percent	Ratio CPS to CSFII
1	0 (no)	1,477	64,814,735	89.3%	78,419,902	78,419,903	89.5%	1.21
2	1 (yes)	172	7,731,211	10.7%	9,244,535	9,244,534	10.5%	1.20
Total		1,649	72,545,945	100.0%	87,664,437	87,664,437	100.0%	1.21
DIM13 (new)	HISPANIC	CSFII sample size (Day 1 resp.)	Pre-raked CSFII estimate	CSFII percent	Final (post- raked) CSFII estimate	March 1994 CPS	CPS percent	Ratio CPS to CSFII
1	0 (no)	1,497	66,519,105	91.7%	79,524,332	79,524,332	90.7%	1.20
2	1 (yes)	152	6,026,841	8.3%	8,140,105	8,140,105	9.3%	1.35
Total		1,649	72,545,945	100.0%	87,664,437	87,664,437	100.0%	1.21
DIM10	SEASON	CSFII sample size (Day 1 resp.)	Pre-raked CSFII estimate	CSFII percent	Final (post- raked) CSFII estimate	March 1994 CPS	CPS percent	Ratio CPS to CSFII
1	1 (Winter)	373	15,385,865	21.2%	21,916,109	21,916,109	25.0%	1.42
2	2 (Spring)	420	18,650,168	25.7%	21,916,109	21,916,109	25.0%	1.18
3	3 (Summer)	438	20,329,408	28.0%	21,916,110	21,916,109	25.0%	1.08
4	4 (Fall)	418	18,180,504	25.1%	21,916,109	21,916,109	25.0%	1.21
Total		1,649	72,545,945	100.0%	87,664,437	87,664,437	100.0%	1.21
DIM11	DAY_ITK	CSFII sample size (Day 1 resp.)	Pre-raked CSFII estimate	CSFII percent	Final (post- raked) CSFII estimate	March 1994 CPS	CPS percent	Ratio CPS to CSFII
1	1 (Sunday)	284	12,403,435	17.1%	12,523,492	12,523,491	14.3%	1.01
2	2 (Monday)	269	11,120,898	15.3%	12,523,491	12,523,491	14.3%	1.13
3	3 (Tuesday)	234	10,345,722	14.3%	12,523,491	12,523,491	14.3%	1.21
4	4 (Wednesday)	194	8,555,994	11.8%	12,523,490	12,523,491	14.3%	1.46
5	5 (Thursday)	165	7,611,348	10.5%	12,523,491	12,523,491	14.3%	1.65
6	6 (Friday)	292	12,878,433	17.8%	12,523,492	12,523,491	14.3%	0.97
7	7 (Saturday)	211	9,630,115	13.3%	12,523,491	12,523,491	14.3%	1.30
Total		1,649	72,545,945	100.0%	87,664,437	87,664,437	100.0%	1.21

ARS Subset 2 (females 20+ years old)
Comparison of Weighted CSFII and CPS Totals by Raking Variables

DIM1 (new)	PS_MSA (METRO)	CSFII sample size (Day 1 resp.)	Pre-raked CSFII estimate	CSFII percent	Final (post- raked) CSFII estimate	March 1994 CPS	CPS percent	Ratio CPS to CSFII
1	1 (MSA)	1,215	64,861,774	77.0%	74,919,992	74,920,030	78.7%	1.16
2	2 (non-MSA)	427	19,368,768	23.0%	20,281,217	20,281,179	21.3%	1.05
Total		1,642	84,230,542	100.0%	95,201,209	95,201,209	100.0%	1.13

DIM12 (new)	REGION	CSFII sample size (Day 1 resp.)	Pre-raked CSFII estimate	CSFII percent	Final (post- raked) CSFII estimate	March 1994 CPS	CPS percent	Ratio CPS to CSFII
1	1 Northeast	306	15,688,410	18.6%	19,685,798	19,685,799	20.7%	1.25
2	2 Midwest	422	20,864,209	24.8%	22,383,173	22,383,178	23.5%	1.07
3	3 South	581	30,868,968	36.6%	33,189,840	33,189,842	34.9%	1.08
4	4 West	333	16,808,955	20.0%	19,942,399	19,942,391	20.9%	1.19
Total		1,642	84,230,542	100.0%	95,201,209	95,201,209	100.0%	1.13

DIM2	KID5	KID17	CSFII sample size (Day 1 resp.)	Pre-raked CSFII estimate	CSFII percent	Final (post- raked) CSFII estimate	March 1994 CPS	CPS percent	Ratio CPS to CSFII
1	0 (no)	0 (no)	1,007	47,709,784	56.6%	54,505,481	54,506,862	57.3%	1.14
2	0 (no)	1 (yes)	338	19,212,093	22.8%	20,650,117	20,649,674	21.7%	1.07
3	1 (yes)	0 (no)	141	8,153,771	9.7%	10,444,905	10,444,403	11.0%	1.28
4	1 (yes)	1 (yes)	156	9,154,894	10.9%	9,600,706	9,600,271	10.1%	1.05
Total			1,642	84,230,542	100.0%	95,201,209	95,201,209	100.0%	1.13

DIM3	ADULT1	ADULT2	CSFII sample size (Day 1 resp.)	Pre-raked CSFII estimate	CSFII percent	Final (post- raked) CSFII estimate	March 1994 CPS	CPS percent	Ratio CPS to CSFII
1	0 (no)	0 (no)	351	18,757,262	22.3%	22,062,703	22,062,595	23.2%	1.18
2	0 (no)	1 (yes)	923	49,544,265	58.8%	53,357,430	53,357,195	56.0%	1.08
3	1 (yes)	0 (no)	368	15,929,015	18.9%	19,781,077	19,781,419	20.8%	1.24
Total			1,642	84,230,542	100.0%	95,201,209	95,201,209	100.0%	1.13

ARS Subset 2 (females 20+ years old)
Comparison of Weighted CSFII and CPS Totals by Raking Variables (Continued)

DIM4	FH40	CSFII sample size (Day 1 resp.)	Pre-raked CSFII estimate	CSFII percent	Final (post- raked) CSFII estimate	March 1994 CPS	CPS percent	Ratio CPS to CSFII
1	0 (no)	1,476	73,234,832	86.9%	84,991,730	84,992,079	89.3%	1.16
2	1 (yes)	166	10,995,710	13.1%	10,209,479	10,209,130	10.7%	0.93
Total		1,642	84,230,542	100.0%	95,201,209	95,201,209	100.0%	1.13

DIM5	HAVEJOB	CSFII sample size (Day 1 resp.)	Pre-raked CSFII estimate	CSFII percent	Final (post- raked) CSFII estimate	March 1994 CPS	CPS percent	Ratio CPS to CSFII
1	0 (no)	804	35,650,678	42.3%	42,384,241	42,385,196	44.5%	1.19
2	1 (yes)	838	48,579,864	57.7%	52,816,968	52,816,013	55.5%	1.09
Total		1,642	84,230,542	100.0%	95,201,209	95,201,209	100.0%	1.13

DIM6	POVGRP	CSFII sample size (Day 1 resp.)	Pre-raked CSFII estimate	CSFII percent	Final (post- raked) CSFII estimate	March 1994 CPS	CPS percent	Ratio CPS to CSFII
1	1 (0-75%)	197	6,843,966	8.1%	8,479,615	8,479,573	8.9%	1.24
2	2 (76-130%)	217	7,577,299	9.0%	10,476,973	10,477,066	11.0%	1.38
3	3 (131-300%)	549	29,958,177	35.6%	30,969,945	30,970,034	32.5%	1.03
4	4 (301%+)	679	39,851,100	47.3%	45,274,676	45,274,536	47.6%	1.14
Total		1,642	84,230,542	100.0%	95,201,209	95,201,209	100.0%	1.13

DIM7	STAMP12	CSFII sample size (Day 1 resp.)	Pre-raked CSFII estimate	CSFII percent	Final (post- raked) CSFII estimate	March 1994 CPS	CPS percent	Ratio CPS to CSFII
1	0 (no)	1,457	77,242,381	91.7%	85,346,849	85,347,070	89.6%	1.10
2	1 (yes)	185	6,988,161	8.3%	9,854,360	9,854,140	10.4%	1.41
Total		1,642	84,230,542	100.0%	95,201,209	95,201,209	100.0%	1.13

DIM8	OWNHOME	AGEGRP	CSFII sample size (Day 1 resp.)	Pre-raked CSFII estimate	CSFII percent	Final (post- raked) CSFII estimate	March 1994 CPS	CPS percent	Ratio CPS to CSFII
1	0 (no)	5&6 (20-39)	291	16,784,760	19.9%	18,627,645	18,627,631	19.6%	1.11
2	0 (no)	7 (40-59)	143	4,916,714	5.8%	6,845,433	6,845,428	7.2%	1.39
3	0 (no)	8&9 (60+)	93	3,723,079	4.4%	4,887,770	4,887,770	5.1%	1.31
4	1 (yes)	5&6 (20-39)	275	20,257,704	24.1%	22,794,207	22,794,198	23.9%	1.13
5	1 (yes)	7 (40-59)	448	22,200,111	26.4%	23,712,503	23,712,522	24.9%	1.07
6	1 (yes)	8&9 (60+)	392	16,348,173	19.4%	18,333,652	18,333,661	19.3%	1.12
Total			1,642	84,230,542	100.0%	95,201,209	95,201,209	100.0%	1.13

ARS Subset 2 (females 20+ years old)

Comparison of Weighted CSFII and CPS Totals by Raking Variables (Continued)

DIM9 (new)	BLACK	CSFII sample size (Day 1 resp.)	Pre-raked CSFII estimate	CSFII percent	Final (post- raked) CSFII estimate	March 1994 CPS	CPS percent	Ratio CPS to CSFII
1	0 (no)	1,428	72,588,626	86.2%	83,742,215	83,742,214	88.0%	1.15
2	1 (yes)	214	11,641,916	13.8%	11,458,994	11,458,995	12.0%	0.98
Total		1,642	84,230,542	100.0%	95,201,209	95,201,209	100.0%	1.13

DIM13 (new)	HISPANIC	CSFII sample size (Day 1 resp.)	Pre-raked CSFII estimate	CSFII percent	Final (post- raked) CSFII estimate	March 1994 CPS	CPS percent	Ratio CPS to CSFII
1	0 (no)	1,492	77,093,943	91.5%	87,166,480	87,166,480	91.6%	1.13
2	1 (yes)	150	7,136,599	8.5%	8,034,729	8,034,729	8.4%	1.13
Total		1,642	84,230,542	100.0%	95,201,209	95,201,209	100.0%	1.13

DIM10	SEASON	CSFII sample size (Day 1 resp.)	Pre-raked CSFII estimate	CSFII percent	Final (post- raked) CSFII estimate	March 1994 CPS	CPS percent	Ratio CPS to CSFII
1	1 (Winter)	395	19,467,912	23.1%	23,800,300	23,800,302	25.0%	1.22
2	2 (Spring)	399	20,431,068	24.3%	23,800,300	23,800,302	25.0%	1.16
3	3 (Summer)	433	23,209,939	27.6%	23,800,299	23,800,302	25.0%	1.03
4	4 (Fall)	415	21,121,623	25.1%	23,800,310	23,800,302	25.0%	1.13
Total		1,642	84,230,542	100.0%	95,201,209	95,201,208	100.0%	1.13

DIM11	DAY_ITK	CSFII sample size (Day 1 resp.)	Pre-raked CSFII estimate	CSFII percent	Final (post- raked) CSFII estimate	March 1994 CPS	CPS percent	Ratio CPS to CSFII
1	1 (Sunday)	301	15,068,463	17.9%	13,600,174	13,600,173	14.3%	0.90
2	2 (Monday)	266	13,571,329	16.1%	13,600,172	13,600,173	14.3%	1.00
3	3 (Tuesday)	238	11,939,333	14.2%	13,600,172	13,600,173	14.3%	1.14
4	4 (Wednesday)	193	9,654,724	11.5%	13,600,173	13,600,173	14.3%	1.41
5	5 (Thursday)	163	8,891,860	10.6%	13,600,171	13,600,173	14.3%	1.53
6	6 (Friday)	280	14,605,994	17.3%	13,600,173	13,600,173	14.3%	0.93
7	7 (Saturday)	201	10,498,839	12.5%	13,600,175	13,600,173	14.3%	1.30
Total		1,642	84,230,542	100.0%	95,201,209	95,201,208	100.0%	1.13

ARS Subset 3 (children 0-5 years old)
Comparison of Weighted CSFII and CPS Totals by Raking Variables

DIM1	PS_MSA (METRO)	CSFII sample size (Day 1 resp.)	Pre-raked CSFII estimate	CSFII percent	Final (post- raked) CSFII estimate	March 1994 CPS	CPS percent	Ratio CPS to CSFII
1	1 (MSA)	942	15,842,541	77.7%	19,833,488	19,833,484	81.2%	1.25
2	2 (non-MSA)	285	4,541,659	22.3%	4,606,805	4,606,809	18.8%	1.01
Total		1,227	20,384,200	100.0%	24,440,293	24,440,293	100.0%	1.20

DIM12	REGION	CSFII sample size (Day 1 resp.)	Pre-raked CSFII estimate	CSFII percent	Final (post- raked) CSFII estimate	March 1994 CPS	CPS percent	Ratio CPS to CSFII
1	1 Northeast	208	3,503,027	17.2%	4,588,209	4,588,209	18.8%	1.31
2	2 Midwest	298	4,949,474	24.3%	5,815,338	5,815,335	23.8%	1.17
3	3 South	403	6,634,886	32.5%	8,201,632	8,201,630	33.6%	1.24
4	4 West	318	5,296,814	26.0%	5,835,114	5,835,119	23.9%	1.10
Total		1,227	20,384,200	100.0%	24,440,293	24,440,293	100.0%	1.20

DIM2	KID17	CSFII sample size (Day 1 resp.)	Pre-raked CSFII estimate	CSFII percent	Final (post- raked) CSFII estimate	March 1994 CPS	CPS percent	Ratio CPS to CSFII
1	0 (no)	681	11,066,011	54.3%	13,497,786	13,497,810	55.2%	1.22
2	1 (yes)	546	9,318,189	45.7%	10,942,508	10,942,483	44.8%	1.17
Total		1,227	20,384,200	100.0%	24,440,293	24,440,293	100.0%	1.20

DIM3	ADULT1	ADULT2	CSFII sample size (Day 1 resp.)	Pre-raked CSFII estimate	CSFII percent	Final (post- raked) CSFII estimate	March 1994 CPS	CPS percent	Ratio CPS to CSFII
1	0 (no)	0 (no)	167	2,858,976	14.0%	3,321,837	3,321,819	13.6%	1.16
2	0 (no)	1 (yes)	877	14,591,866	71.6%	17,529,408	17,529,496	71.7%	1.20
3	1 (yes)	0 (no)	183	2,933,358	14.4%	3,589,048	3,588,979	14.7%	1.22
Total			1,227	20,384,200	100.0%	24,440,293	24,440,293	100.0%	1.20

DIM5	HEADJOB	CSFII sample size (Day 1 resp.)	Pre-raked CSFII estimate	CSFII percent	Final (post- raked) CSFII estimate	March 1994 CPS	CPS percent	Ratio CPS to CSFII
1	0 (no)	553	9,082,176	44.6%	11,369,615	11,369,535	46.5%	1.25
2	1 (yes)	674	11,302,024	55.4%	13,070,678	13,070,758	53.5%	1.16
Total		1,227	20,384,200	100.0%	24,440,293	24,440,293	100.0%	1.20

ARS Subset 3 (children 0-5 years old)
Comparison of Weighted CSFII and CPS Totals by Raking Variables (Continued)

DIM6	POVGRP		CSFII sample size (Day 1 resp.)	Pre-raked CSFII estimate	CSFII percent	Final (post- raked) CSFII estimate	March 1994 CPS	CPS percent	Ratio CPS to CSFII
1	1	0-75%	255	3,952,451	19.4%	4,575,003	4,574,918	18.7%	1.16
2	2	76-130%	175	2,706,821	13.3%	3,401,673	3,401,650	13.9%	1.26
3	3	131-300%	435	7,580,151	37.2%	8,557,287	8,557,324	35.0%	1.13
4	4	301% +	362	6,144,778	30.1%	7,906,330	7,906,401	32.3%	1.29
Total			1,227	20,384,200	100.0%	24,440,293	24,440,293	100.0%	1.20
DIM7	STAMP12		CSFII sample size (Day 1 resp.)	Pre-raked CSFII estimate	CSFII percent	Final (post- raked) CSFII estimate	March 1994 CPS	CPS percent	Ratio CPS to CSFII
1	0	(no)	893	15,215,741	74.6%	18,334,944	18,334,962	75.0%	1.20
2	1	(yes)	334	5,168,459	25.4%	6,105,349	6,105,332	25.0%	1.18
Total			1,227	20,384,200	100.0%	24,440,293	24,440,293	100.0%	1.20
DIM8	OWNHOME		CSFII sample size (Day 1 resp.)	Pre-raked CSFII estimate	CSFII percent	Final (post- raked) CSFII estimate	March 1994 CPS	CPS percent	Ratio CPS to CSFII
1	0	(no)	540	8,768,651	43.0%	11,331,324	11,331,311	46.4%	1.29
2	1	(yes)	687	11,615,549	57.0%	13,108,969	13,108,983	53.6%	1.13
Total			1,227	20,384,200	100.0%	24,440,293	24,440,293	100.0%	1.20
DIM4	SEX	AGEGRP	CSFII sample size (Day 1 resp.)	Pre-raked CSFII estimate	CSFII percent	Final (post- raked) CSFII estimate	March 1994 CPS	CPS percent	Ratio CPS to CSFII
1	1 (M)	1 (0-2 yrs)	311	4,505,882	22.1%	6,237,967	6,237,955	25.5%	1.38
2	1 (M)	2 (3-5 yrs)	299	5,644,612	27.7%	6,258,218	6,258,221	25.6%	1.11
3	2 (F)	1 (0-2 yrs)	314	4,578,360	22.5%	5,962,548	5,962,552	24.4%	1.30
4	2 (F)	2 (3-5 yrs)	303	5,655,346	27.7%	5,981,561	5,981,566	24.5%	1.06
Total			1,227	20,384,200	100.0%	24,440,293	24,440,293	100.0%	1.20
DIM9	BLACK		CSFII sample size (Day 1 resp.)	Pre-raked CSFII estimate	CSFII percent	Final (post- raked) CSFII estimate	March 1994 CPS	CPS percent	Ratio CPS to CSFII
1	0	(no)	1,048	17,449,251	85.6%	20,412,314	20,412,310	83.5%	1.17
2	1	(yes)	179	2,934,949	14.4%	4,027,979	4,027,983	16.5%	1.37
Total			1,227	20,384,200	100.0%	24,440,293	24,440,293	100.0%	1.20

ARS Subset 3 (children 0-5 years old)

Comparison of Weighted CSFII and CPS Totals by Raking Variables (Continued)

DIM13	HISPANIC	CSFII sample size (Day 1 resp.)	Pre-raked CSFII estimate	CSFII percent	Final (post- raked) CSFII estimate	March 1994 CPS	CPS percent	Ratio CPS to CSFII
1	0 (no)	1,030	17,065,789	83.7%	20,721,303	20,721,303	84.8%	1.21
2	1 (yes)	197	3,318,411	16.3%	3,718,990	3,718,990	15.2%	1.12
Total		1,227	20,384,200	100.0%	24,440,293	24,440,293	100.0%	1.20

DIM10	SEASON	CSFII sample size (Day 1 resp.)	Pre-raked CSFII estimate	CSFII percent	Final (post- raked) CSFII estimate	March 1994 CPS	CPS percent	Ratio CPS to CSFII
1	1 (Winter)	309	5,103,324	25.0%	6,110,073	6,110,073	25.0%	1.20
2	2 (Spring)	298	4,832,633	23.7%	6,110,072	6,110,073	25.0%	1.26
3	3 (Summer)	317	5,261,662	25.8%	6,110,073	6,110,073	25.0%	1.16
4	4 (Fall)	303	5,186,582	25.4%	6,110,075	6,110,073	25.0%	1.18
Total		1,227	20,384,200	100.0%	24,440,293	24,440,293	100.0%	1.20

DIM11	DAY_ITK	CSFII sample size (Day 1 resp.)	Pre-raked CSFII estimate	CSFII percent	Final (post- raked) CSFII estimate	March 1994 CPS	CPS percent	Ratio CPS to CSFII
1	1 (Sunday)	205	3,359,368	16.5%	3,491,470	3,491,470	14.3%	1.04
2	2 (Monday)	179	3,055,226	15.0%	3,491,472	3,491,470	14.3%	1.14
3	3 (Tuesday)	211	3,477,351	17.1%	3,491,469	3,491,470	14.3%	1.00
4	4 (Wednesday)	147	2,463,210	12.1%	3,491,473	3,491,470	14.3%	1.42
5	5 (Thursday)	139	2,320,585	11.4%	3,491,469	3,491,470	14.3%	1.50
6	6 (Friday)	196	3,246,953	15.9%	3,491,471	3,491,470	14.3%	1.08
7	7 (Saturday)	150	2,461,507	12.1%	3,491,469	3,491,470	14.3%	1.42
Total		1,227	20,384,200	100.0%	24,440,293	24,440,293	100.0%	1.20

ARS Subset 4 (children 6-19 years old)

Comparison of Weighted CSFII and CPS Totals by Raking Variables

			CSFII						
	PS_MSA		sample size	Pre-raked		Final (post-	March 1994	CPS	Ratio CPS
DIM1	(METRO)		(Day 1	CSFII	CSFII	raked) CSFII	CPS	percent	to CSFII
			resp.)	estimate	percent	estimate			
1	1 (MSA)		782	35,167,730	75.5 %	40,409,847	40,409,882	77.4 %	1.15
2	2 (non-MSA)		289	11,394,382	24.5 %	11,791,465	11,791,431	22.6 %	1.03
Total			1,071	46,562,111	100.0 %	52,201,312	52,201,312	100.0 %	1.12
			CSFII						
	REGION		sample size	Pre-raked		Final (post-	March 1994	CPS	Ratio CPS
DIM12			(Day 1	CSFII	CSFII	raked) CSFII	CPS	percent	to CSFII
			resp.)	estimate	percent	estimate			
1	1 Northeast		150	6,504,943	14.0 %	9,649,874	9,649,878	18.5 %	1.48
2	2 Midwest		285	11,941,987	25.6 %	12,576,503	12,576,495	24.1 %	1.05
3	3 South		361	16,562,481	35.6 %	18,185,011	18,185,004	34.8 %	1.10
4	4 West		275	11,552,702	24.8 %	11,789,926	11,789,936	22.6 %	1.02
Total			1,071	46,562,111	100.0 %	52,201,312	52,201,312	100.0 %	1.12
			CSFII						
	KID5		sample size	Pre-raked		Final (post-	March 1994	CPS	Ratio CPS
DIM14			(Day 1	CSFII	CSFII	raked) CSFII	CPS	percent	to CSFII
			resp.)	estimate	percent	estimate			
1	0 (no)		768	34,310,829	73.7 %	38,035,548	38,035,548	72.9 %	1.11
2	1 (yes)		303	12,251,283	26.3 %	14,165,764	14,165,764	27.1 %	1.16
Total			1,071	46,562,111	100.0 %	52,201,312	52,201,312	100.0 %	1.12
			CSFII						
	KID17		sample size	Pre-raked		Final (post-	March 1994	CPS	Ratio CPS
DIM2			(Day 1	CSFII	CSFII	raked) CSFII	CPS	percent	to CSFII
			resp.)	estimate	percent	estimate			
1	0 (no)		60	2,839,662	6.1 %	3,598,723	3,598,715	6.9 %	1.27
2	1 (yes)		1,011	43,722,450	93.9 %	48,602,590	48,602,598	93.1 %	1.11
Total			1,071	46,562,111	100.0 %	52,201,312	52,201,312	100.0 %	1.12
			CSFII						
	ADULT1	ADULT2	sample size	Pre-raked		Final (post-	March 1994	CPS	Ratio CPS
DIM3			(Day 1	CSFII	CSFII	raked) CSFII	CPS	percent	to CSFII
			resp.)	estimate	percent	estimate			
1	0 (no)	0 (no)	269	13,163,966	28.3 %	13,466,808	13,466,818	25.8 %	1.02
2	0 (no)	1 (yes)	663	28,174,549	60.5 %	30,667,213	30,667,255	58.7 %	1.09
3	1 (yes)	0 (no)	139	5,223,597	11.2 %	8,067,292	8,067,239	15.5 %	1.54
Total			1,071	46,562,111	100.0 %	52,201,312	52,201,312	100.0 %	1.12

ARS Subset 4 (children 6-19 years old)
Comparison of Weighted CSFII and CPS Totals by Raking Variables (Continued)

DIM5	HEADJOB	CSFII sample size (Day 1 resp.)	Pre-raked CSFII estimate	CSFII percent	Final (post- raked) CSFII estimate	March 1994 CPS	CPS percent	Ratio CPS to CSFII
1	0 (no)	368	15,185,444	32.6 %	18,632,878	18,632,794	35.7 %	1.23
2	1 (yes)	703	31,376,668	67.4 %	33,568,435	33,568,519	64.3 %	1.07
Total		1,071	46,562,111	100.0 %	52,201,312	52,201,312	100.0 %	1.12

DIM6	POVGRP	CSFII sample size (Day 1 resp.)	Pre-raked CSFII estimate	CSFII percent	Final (post- raked) CSFII estimate	March 1994 CPS	CPS percent	Ratio CPS to CSFII
1	1 (0-75 %)	173	5,863,627	12.6 %	7,512,710	7,512,731	14.4 %	1.28
2	2 (76-130 %)	124	4,418,544	9.5 %	6,306,186	6,306,194	12.1 %	1.43
3	3 (131-300 %)	407	18,361,062	39.4 %	18,436,763	18,436,769	35.3 %	1.00
4	4 (301 % +)	367	17,918,878	38.5 %	19,945,653	19,945,618	38.2 %	1.11
Total		1,071	46,562,111	100.0 %	52,201,312	52,201,312	100.0 %	1.12

DIM7	STAMP12	CSFII sample size (Day 1 resp.)	Pre-raked CSFII estimate	CSFII percent	Final (post- raked) CSFII estimate	March 1994 CPS	CPS percent	Ratio CPS to CSFII
1	0 (no)	887	39,984,410	85.9 %	43,155,739	43,155,714	82.7 %	1.08
2	1 (yes)	184	6,577,702	14.1 %	9,045,574	9,045,599	17.3 %	1.38
Total		1,071	46,562,111	100.0 %	52,201,312	52,201,312	100.0 %	1.12

DIM8	OWNHOME	CSFII sample size (Day 1 resp.)	Pre-raked CSFII estimate	CSFII percent	Final (post- raked) CSFII estimate	March 1994 CPS	CPS percent	Ratio CPS to CSFII
1	0 (no)	349	13,422,737	28.8 %	17,632,268	17,632,281	33.8 %	1.31
2	1 (yes)	722	33,139,375	71.2 %	34,569,044	34,569,031	66.2 %	1.04
Total		1,071	46,562,111	100.0 %	52,201,312	52,201,312	100.0 %	1.12

DIM4	SEX	AGEGRP	CSFII sample size (Day 1 resp.)	Pre-raked CSFII estimate	CSFII percent	Final (post- raked) CSFII estimate	March 1994 CPS	CPS percent	Ratio CPS to CSFII
1	1 (M)	3 (6-11 yrs)	254	9,938,185	21.3 %	11,860,822	11,860,832	22.7 %	1.19
2	1 (M)	4 (12-19 yrs)	286	14,157,596	30.4 %	14,775,578	14,775,576	28.3 %	1.04
3	2 (F)	3 (6-11 yrs)	260	9,595,325	20.6 %	11,296,815	11,296,811	21.6 %	1.18
4	2 (F)	4 (12-19 yrs)	271	12,871,005	27.6 %	14,268,098	14,268,094	27.3 %	1.11
Total			1,071	46,562,111	100.0 %	52,201,312	52,201,312	100.0 %	1.12

ARS Subset 4 (children 6-19 years old)

Comparison of Weighted CSFII and CPS Totals by Raking Variables (Continued)

DIM9	BLACK	CSFII sample size (Day 1 resp.)	Pre-raked CSFII estimate	CSFII percent	Final (post- raked) CSFII estimate	March 1994 CPS	CPS percent	Ratio CPS to CSFII
1	0 (no)	929	39,723,989	85.3 %	43,938,676	43,938,676	84.2 %	1.11
2	1 (yes)	142	6,838,123	14.7 %	8,262,636	8,262,637	15.8 %	1.21
Total		1,071	46,562,111	100.0 %	52,201,312	52,201,313	100.0 %	1.12

DIM13	HISPANIC	CSFII sample size (Day 1 resp.)	Pre-raked CSFII estimate	CSFII percent	Final (post- raked) CSFII estimate	March 1994 CPS	CPS percent	Ratio CPS to CSFII
1	0 (no)	912	40,253,457	86.5 %	45,486,408	45,486,405	87.1 %	1.13
2	1 (yes)	159	6,308,654	13.5 %	6,714,905	6,714,908	12.9 %	1.06
Total		1,071	46,562,111	100.0 %	52,201,312	52,201,312	100.0 %	1.12

DIM10	SEASON	CSFII sample size (Day 1 resp.)	Pre-raked CSFII estimate	CSFII percent	Final (post- raked) CSFII estimate	March 1994 CPS	CPS percent	Ratio CPS to CSFII
1	1 (Winter)	292	12,349,285	26.5 %	13,050,329	13,050,328	25.0 %	1.06
2	2 (Spring)	251	10,512,143	22.6 %	13,050,331	13,050,328	25.0 %	1.24
3	3 (Summer)	281	13,179,153	28.3 %	13,050,330	13,050,328	25.0 %	0.99
4	4 (Fall)	247	10,521,531	22.6 %	13,050,323	13,050,328	25.0 %	1.24
Total		1,071	46,562,111	100.0 %	52,201,312	52,201,312	100.0 %	1.12

DIM11	DAY_ITK	CSFII sample size (Day 1 resp.)	Pre-raked CSFII estimate	CSFII percent	Final (post- raked) CSFII estimate	March 1994 CPS	CPS percent	Ratio CPS to CSFII
1	1 (Sunday)	160	6,781,498	14.6 %	7,457,330	7,457,330	14.3 %	1.10
2	2 (Monday)	175	7,401,596	15.9 %	7,457,332	7,457,330	14.3 %	1.01
3	3 (Tuesday)	166	7,087,783	15.2 %	7,457,329	7,457,330	14.3 %	1.05
4	4 (Wednesday)	161	6,578,128	14.1 %	7,457,332	7,457,330	14.3 %	1.13
5	5 (Thursday)	114	5,541,731	11.9 %	7,457,331	7,457,330	14.3 %	1.35
6	6 (Friday)	171	7,347,977	15.8 %	7,457,331	7,457,330	14.3 %	1.01
7	7 (Saturday)	124	5,823,398	12.5 %	7,457,328	7,457,330	14.3 %	1.28
Total		1,071	46,562,111	100.0 %	52,201,312	52,201,312	100.0 %	1.12

DHKS Weights

ARS Subset 1 (males 20+ years old)

Comparison of Weighted DHKS and CPS Totals by Raking Variables

DIM1	PS_MSA (METRO)		DHKS sample size (resp.)	Pre-raked DHKS estimate	DHKS percent	March 1994 CPS	CPS percent	Ratio CPS to DHKS
1	1 (MSA)		639	53,442,853	76.9%	69,090,997	78.8%	1.29
2	2 (non-MSA)		263	16,047,767	23.1%	18,573,440	21.2%	1.16
Total			902	69,490,620	100.0%	87,664,437	100.0%	1.26

DIM12 (new)	REGION		DHKS sample size (resp.)	Pre-raked DHKS estimate	DHKS percent	March 1994 CPS	CPS percent	Ratio CPS to DHKS
1	1 Northeast		162	11,633,521	16.7%	17,566,644	20.0%	1.51
2	2 Midwest		218	16,119,590	23.2%	20,409,459	23.3%	1.27
3	3 South		317	25,601,340	36.8%	30,230,680	34.5%	1.18
4	4 West		205	16,136,170	23.2%	19,457,654	22.2%	1.21
Total			902	69,490,620	100.0%	87,664,437	100.0%	1.26

DIM2	KID5	KID17	DHKS sample size (resp.)	Pre-raked DHKS estimate	DHKS percent	March 1994 CPS	CPS percent	Ratio CPS to DHKS
1	0 (no)	0 (no)	589	41,307,057	59.4%	53,526,302	61.1%	1.30
2	0 (no)	1 (yes)	168	14,790,831	21.3%	17,597,810	20.1%	1.19
3	1 (yes)	0 (no)	75	7,204,574	10.4%	8,680,549	9.9%	1.20
4	1 (yes)	1 (yes)	70	6,188,159	8.9%	7,859,777	9.0%	1.27
Total			902	69,490,620	100.0%	87,664,437	100.0%	1.26

DIM3	ADULT1	ADULT2	DHKS sample size (resp.)	Pre-raked DHKS estimate	DHKS percent	March 1994 CPS	CPS percent	Ratio CPS to DHKS
1	0 (no)	0 (no)	158	15,353,988	22.1%	25,283,442	28.8%	1.65
2	0 (no)	1 (yes)	565	45,798,652	65.9%	52,305,892	59.7%	1.14
3	1 (yes)	0 (no)	179	8,337,980	12.0%	10,075,103	11.5%	1.21
Total			902	69,490,620	100.0%	87,664,437	100.0%	1.26

DHKS Weights
ARS Subset 1 (males 20+ years old)
Comparison of Weighted DHKS and CPS Totals by Raking Variables (Continued)

			DHKS sample size (resp.)	Pre-raked DHKS estimate	DHKS percent	March 1994 CPS	CPS percent	Ratio CPS to DHKS
DIM4	FH40							
1	0 (no)		848	62,989,308	90.6%	81,267,770	92.7%	1.29
2	1 (yes)		54	6,501,312	9.4%	6,396,667	7.3%	0.98
Total			902	69,490,620	100.0%	87,664,437	100.0%	1.26
			DHKS sample size (resp.)	Pre-raked DHKS estimate	DHKS percent	March 1994 CPS	CPS percent	Ratio CPS to DHKS
DIM5	HAVEJOB							
1	0 (no)		314	17,110,248	24.6%	26,478,525	30.2%	1.55
2	1 (yes)		588	52,380,372	75.4%	61,185,912	69.8%	1.17
Total			902	69,490,620	100.0%	87,664,437	100.0%	1.26
			DHKS sample size (resp.)	Pre-raked DHKS estimate	DHKS percent	March 1994 CPS	CPS percent	Ratio CPS to DHKS
DIM6	POVGRP							
1	1 (0-75%)		86	3,787,634	5.5%	4,572,820	5.2%	1.21
2	2 (76-130%)		142	5,496,247	7.9%	7,120,844	8.1%	1.30
3	3 (131-300%)		283	23,939,585	34.5%	28,000,514	31.9%	1.17
4	4 (301%+)		391	36,267,154	52.2%	47,970,259	54.7%	1.32
Total			902	69,490,620	100.0%	87,664,437	100.0%	1.26
			DHKS sample size (resp.)	Pre-raked DHKS estimate	DHKS percent	March 1994 CPS	CPS percent	Ratio CPS to DHKS
DIM7	STAMP12							
1	0 (no)		815	65,436,764	94.2%	82,025,625	93.6%	1.25
2	1 (yes)		87	4,053,856	5.8%	5,638,812	6.4%	1.39
Total			902	69,490,620	100.0%	87,664,437	100.0%	1.26
			DHKS sample size (resp.)	Pre-raked DHKS estimate	DHKS percent	March 1994 CPS	CPS percent	Ratio CPS to DHKS
DIM8	OWNHOME	AGEGRP						
1	0 (no)	5&6 (20-39)	145	13,876,468	20.0%	17,768,207	20.3%	1.28
2	0 (no)	7 (40-59)	91	4,307,493	6.2%	6,556,231	7.5%	1.52
3	0 (no)	8&9 (60+)	47	1,814,216	2.6%	2,669,630	3.0%	1.47
4	1 (yes)	5&6 (20-39)	159	19,062,149	27.4%	23,152,149	26.4%	1.21
5	1 (yes)	7 (40-59)	236	18,626,180	26.8%	22,670,937	25.9%	1.22
6	1 (yes)	8&9 (60+)	224	11,804,115	17.0%	14,847,284	16.9%	1.26
Total			902	69,490,620	100.0%	87,664,437	100.0%	1.26

DHKS Weights
ARS Subset 1 (males 20+ years old)
Comparison of Weighted DHKS and CPS Totals by Raking Variables (Continued)

DIM9 (new)	BLACK	DHKS sample size (resp.)	Pre-raked DHKS estimate	DHKS percent	March 1994 CPS	CPS percent	Ratio CPS to DHKS
1	0 (no)	800	60,787,042	87.5%	78,419,903	89.5%	1.29
2	1 (yes)	102	8,703,578	12.5%	9,244,534	10.5%	1.06
Total		902	69,490,620	100.0%	87,664,437	100.0%	1.26
DIM13 (new)	HISPANIC	DHKS sample size (resp.)	Pre-raked DHKS estimate	DHKS percent	March 1994 CPS	CPS percent	Ratio CPS to DHKS
1	0 (no)	822	63,858,914	91.9%	79,524,332	90.7%	1.25
2	1 (yes)	80	5,631,705	8.1%	8,140,105	9.3%	1.45
Total		902	69,490,620	100.0%	87,664,437	100.0%	1.26
DIM10	SEASON	DHKS sample size (resp.)	Pre-raked DHKS estimate	DHKS percent	March 1994 CPS	CPS percent	Ratio CPS to DHKS
1	1 (Winter)	194	14,646,621	21.1%	21,916,109	25.0%	1.50
2	2 (Spring)	235	19,091,770	27.5%	21,916,109	25.0%	1.15
3	3 (Summer)	246	19,464,317	28.0%	21,916,109	25.0%	1.13
4	4 (Fall)	227	16,287,912	23.4%	21,916,109	25.0%	1.35
Total		902	69,490,620	100.0%	87,664,437	100.0%	1.26
DIM11	DAY_ITK	DHKS sample size (resp.)	Pre-raked DHKS estimate	DHKS percent	March 1994 CPS	CPS percent	Ratio CPS to DHKS
1	1 (Sunday)	149	11,626,777	16.7%	12,523,491	14.3%	1.08
2	2 (Monday)	140	10,124,544	14.6%	12,523,491	14.3%	1.24
3	3 (Tuesday)	134	10,232,938	14.7%	12,523,491	14.3%	1.22
4	4 (Wednesday)	113	9,127,974	13.1%	12,523,491	14.3%	1.37
5	5 (Thursday)	86	7,059,892	10.2%	12,523,491	14.3%	1.77
6	6 (Friday)	158	11,881,445	17.1%	12,523,491	14.3%	1.05
7	7 (Saturday)	122	9,437,049	13.6%	12,523,491	14.3%	1.33
Total		902	69,490,620	100.0%	87,664,437	100.0%	1.26

DHKS Weights

ARS Subset 2 (females 20+ years old)

Comparison of Weighted DHKS and CPS Totals by Raking Variables

DIM1	PS_MSA (METRO)		DHKS sample size (resp.)	Pre-raked DHKS estimate	DHKS percent	March 1994 CPS	CPS percent	Ratio CPS to DHKS
1	1 (MSA)		722	66,390,267	75.9 %	74,920,030	78.7 %	1.13
2	2 (non-MSA)		255	21,064,782	24.1 %	20,281,179	21.3 %	0.96
Total			977	87,455,049	100.0 %	95,201,209	100.0 %	1.09

DIM12 (new)	REGION		DHKS sample size (resp.)	Pre-raked DHKS estimate	DHKS percent	March 1994 CPS	CPS percent	Ratio CPS to DHKS
1	1 Northeast		201	18,231,443	20.8 %	19,685,799	20.7 %	1.08
2	2 Midwest		286	24,052,768	27.5 %	22,383,178	23.5 %	0.93
3	3 South		328	29,491,362	33.7 %	33,189,842	34.9 %	1.13
4	4 West		162	15,679,476	17.9 %	19,942,391	20.9 %	1.27
Total			977	87,455,049	100.0 %	95,201,209	100.0 %	1.09

DIM2	KID5	KID17	DHKS sample size (resp.)	Pre-raked DHKS estimate	DHKS percent	March 1994 CPS	CPS percent	Ratio CPS to DHKS
1	0 (no)	0 (no)	619	49,740,840	56.9 %	54,506,862	57.3 %	1.10
2	0 (no)	1 (yes)	199	20,513,060	23.5 %	20,649,674	21.7 %	1.01
3	1 (yes)	0 (no)	73	8,046,033	9.2 %	10,444,403	11.0 %	1.30
4	1 (yes)	1 (yes)	86	9,155,116	10.5 %	9,600,271	10.1 %	1.05
Total			977	87,455,049	100.0 %	95,201,209	100.0 %	1.09

DIM3	ADULT1	ADULT2	DHKS sample size (resp.)	Pre-raked DHKS estimate	DHKS percent	March 1994 CPS	CPS percent	Ratio CPS to DHKS
1	0 (no)	0 (no)	150	19,237,979	22.0 %	22,062,595	23.2 %	1.15
2	0 (no)	1 (yes)	491	51,680,608	59.1 %	53,357,195	56.0 %	1.03
3	1 (yes)	0 (no)	336	16,536,462	18.9 %	19,781,419	20.8 %	1.20
Total			977	87,455,049	100.0 %	95,201,209	100.0 %	1.09

DHKS Weights

ARS Subset 2 (females 20+ years old)

Comparison of Weighted DHKS and CPS Totals by Raking Variables (Continued)

DIM4	FH40		DHKS sample size (resp.)	Pre-raked DHKS estimate	DHKS percent	March 1994 CPS	CPS percent	Ratio CPS to DHKS
1	0 (no)		881	75,847,311	86.7%	84,992,079	89.3%	1.12
2	1 (yes)		96	11,607,738	13.3%	10,209,130	10.7%	0.88
Total			977	87,455,049	100.0%	95,201,209	100.0%	1.09
DIM5	HAVEJOB		DHKS sample size (resp.)	Pre-raked DHKS estimate	DHKS percent	March 1994 CPS	CPS percent	Ratio CPS to DHKS
1	0 (no)		484	37,174,780	42.5%	42,385,196	44.5%	1.14
2	1 (yes)		493	50,280,269	57.5%	52,816,013	55.5%	1.05
Total			977	87,455,049	100.0%	95,201,209	100.0%	1.09
DIM6	POVGRP		DHKS sample size (resp.)	Pre-raked DHKS estimate	DHKS percent	March 1994 CPS	CPS percent	Ratio CPS to DHKS
1	1 (0-75%)		146	7,355,428	8.4%	8,479,573	8.9%	1.15
2	2 (76-130%)		138	7,579,340	8.7%	10,477,066	11.0%	1.38
3	3 (131-300%)		313	30,428,899	34.8%	30,970,034	32.5%	1.02
4	4 (301%+)		380	42,091,382	48.1%	45,274,536	47.6%	1.08
Total			977	87,455,049	100.0%	95,201,209	100.0%	1.09
DIM7	STAMP12		DHKS sample size (resp.)	Pre-raked DHKS estimate	DHKS percent	March 1994 CPS	CPS percent	Ratio CPS to DHKS
1	0 (no)		848	79,900,271	91.4%	85,347,070	89.6%	1.07
2	1 (yes)		129	7,554,778	8.6%	9,854,140	10.4%	1.30
Total			977	87,455,049	100.0%	95,201,209	100.0%	1.09
DIM8	OWNHOME	AGEGRP	DHKS sample size (resp.)	Pre-raked DHKS estimate	DHKS percent	March 1994 CPS	CPS percent	Ratio CPS to DHKS
1	0 (no)	5&6 (20-39)	180	18,439,110	21.1%	18,627,631	19.6%	1.01
2	0 (no)	7 (40-59)	95	4,644,101	5.3%	6,845,428	7.2%	1.47
3	0 (no)	8&9 (60+)	66	3,500,949	4.0%	4,887,770	5.1%	1.40
4	1 (yes)	5&6 (20-39)	138	20,265,701	23.2%	22,794,198	23.9%	1.12
5	1 (yes)	7 (40-59)	261	23,493,634	26.9%	23,712,522	24.9%	1.01
6	1 (yes)	8&9 (60+)	237	17,111,553	19.6%	18,333,661	19.3%	1.07
Total			977	87,455,049	100.0%	95,201,209	100.0%	1.09

DHKS Weights

ARS Subset 2 (females 20+ years old)

Comparison of Weighted DHKS and CPS Totals by Raking Variables (Continued)

DIM9 (new)	BLACK	DHKS sample size (resp.)	Pre-raked DHKS estimate	DHKS percent	March 1994 CPS	CPS percent	Ratio CPS to DHKS
1	0 (no)	847	76,529,592	87.5 %	83,742,214	88.0 %	1.09
2	1 (yes)	130	10,925,457	12.5 %	11,458,995	12.0 %	1.05
Total		977	87,455,049	100.0 %	95,201,209	100.0 %	1.09
DIM13 (new)	HISPANIC	DHKS sample size (resp.)	Pre-raked DHKS estimate	DHKS percent	March 1994 CPS	CPS percent	Ratio CPS to DHKS
1	0 (no)	895	80,583,289	92.1 %	87,166,480	91.6 %	1.08
2	1 (yes)	82	6,871,760	7.9 %	8,034,728	8.4 %	1.17
Total		977	87,455,049	100.0 %	95,201,208	100.0 %	1.09
DIM10	SEASON	DHKS sample size (resp.)	Pre-raked DHKS estimate	DHKS percent	March 1994 CPS	CPS percent	Ratio CPS to DHKS
1	1 (Winter)	239	20,498,795	23.4 %	23,800,302	25.0 %	1.16
2	2 (Spring)	231	19,761,687	22.6 %	23,800,302	25.0 %	1.20
3	3 (Summer)	255	23,901,960	27.3 %	23,800,302	25.0 %	1.00
4	4 (Fall)	252	23,292,607	26.6 %	23,800,302	25.0 %	1.02
Total		977	87,455,049	100.0 %	95,201,208	100.0 %	1.09
DIM11	DAY_ITK	DHKS sample size (resp.)	Pre-raked DHKS estimate	DHKS percent	March 1994 CPS	CPS percent	Ratio CPS to DHKS
1	1 (Sunday)	180	15,382,366	17.6 %	13,600,173	14.3 %	0.88
2	2 (Monday)	155	13,326,115	15.2 %	13,600,173	14.3 %	1.02
3	3 (Tuesday)	145	11,836,194	13.5 %	13,600,173	14.3 %	1.15
4	4 (Wednesday)	110	9,724,149	11.1 %	13,600,173	14.3 %	1.40
5	5 (Thursday)	97	10,212,706	11.7 %	13,600,173	14.3 %	1.33
6	6 (Friday)	170	16,458,408	18.8 %	13,600,173	14.3 %	0.83
7	7 (Saturday)	120	10,515,111	12.0 %	13,600,173	14.3 %	1.29
Total		977	87,455,049	100.0 %	95,201,208	100.0 %	1.09

3.A CSFII/DHKS 1994 Data Collection Instruments

OMB #: 0586-0014

Expires: October 31, 1996

WHAT WE EAT IN AMERICA: 1994-1996

SCREENER

CASE #: _____

ADDRESS: _____

MISSED STRUCTURE: _____ YES _____ NO

MISSED DU: _____ YES _____ NO

CONTACT DAYS _____

SAMPLE MESSAGE: _____

INTRODUCTION: Hello, I'm (YOUR NAME) and we are conducting a survey for the United States Department of Agriculture. A letter and brochure were sent to you recently explaining the What We Eat in America Survey which is about what people eat and drink. (IF RESIDENT DOES NOT REMEMBER, HAND NEW COPY OF LETTER AND BROCHURE.)

First, I would like to verify your address. Is this (READ ADDRESS FROM LABEL ABOVE)? [MAKE CORRECTIONS TO ADDRESS LABEL IF NECESSARY. IF AT CORRECT ADDRESS, CONTINUE WITH SCREENER. IF NOT AT CORRECT ADDRESS, THANK RESPONDENT AND LEAVE.]

I need to determine if any members of your household are eligible to participate. To do this, I'd like to ask some questions about the persons who live here. Each eligible household that agrees to participate will receive a gift. Before we begin, I want to assure you that your answers will be combined with answers from other households to make totals and averages, in which no person or family will be identified.

INTERVIEWER NAME: _____

|_|_|_|:|_|_|_|
TIME STARTED

AM 1

PM 2

INTERVIEWER ID: |_|_|_|_|

|_|_|_|:|_|_|_|
TIME ENDED

AM 1

PM 2

DATE OF SCREENER: |_|_|_|-|_|_|_|-19 |_|_|_|
MO DAY YR

RESPONDENT'S FIRST NAME: _____

LINE LETTER: |_|_|

DISPOSITION CODE: _____

FOR HOME OFFICE USE ONLY

DATE RECEIVED: _____

VERIFIER ID: _____

MC: _____ YES _____ NO

BATCH #: _____

1. Including yourself, how many people live in this household? |_|_|
NUMBER
2. What is the first name of the person or one of the persons who owns or rents this home?
[ENTER NAME ON LINE A OF ENUMERATION TABLE BELOW.]
[IF ONLY ONE PERSON LIVES IN HOUSEHOLD, GO TO Q6. OTHERWISE CONTINUE.]
3. What is the first name of (REFERENCE PERSON)'s spouse, if any, who lives in this household?
[ENTER NAME ON LINE B OF ENUMERATION TABLE BELOW.]

ENUMERATION TABLE: AFTER LISTING HOUSEHOLD MEMBERS, RECORD NAME AND LINE LETTER OF
SCREENER RESPONDENT ON FRONT COVER. ASK QUESTIONS 8 - 13 GOING ACROSS FOR EACH PERSON.

LINE LTR	ENUMERATION QUESTIONS 2-7: FIRST NAME	8. What is (NAME)'s relationship to (REFERENCE PERSON)?	9. <div style="border: 1px solid black; padding: 5px; display: inline-block;">HAND CARD S1</div> Which of the groups on this card best describes (NAME)'s race?
A		REFERENCE PERSON _ _	WHITE 1 AM. INDIAN 4 BLACK 2 OTHER 5 ASIAN 3
B		_ _	WHITE 1 AM. INDIAN 4 BLACK 2 OTHER 5 ASIAN 3
C		_ _	WHITE 1 AM. INDIAN 4 BLACK 2 OTHER 5 ASIAN 3
D		_ _	WHITE 1 AM. INDIAN 4 BLACK 2 OTHER 5 ASIAN 3
E		_ _	WHITE 1 AM. INDIAN 4 BLACK 2 OTHER 5 ASIAN 3
F		_ _	WHITE 1 AM. INDIAN 4 BLACK 2 OTHER 5 ASIAN 3
G		_ _	WHITE 1 AM. INDIAN 4 BLACK 2 OTHER 5 ASIAN 3
H		_ _	WHITE 1 AM. INDIAN 4 BLACK 2 OTHER 5 ASIAN 3
I		_ _	WHITE 1 AM. INDIAN 4 BLACK 2 OTHER 5 ASIAN 3

4. And the other members of this household who are related to (REFERENCE PERSON). What are their first names? Let's begin with the oldest.
[ENTER NAME(S) IN AGE ORDER ON ENUMERATION TABLE BELOW.]
5. Are there any other people living here who are not related to (REFERENCE PERSON)?
[IF YES, ENTER NAME(S) ON ENUMERATION TABLE BELOW]
6. [I have listed (READ ALL NAMES).] Is there anyone else living here now, such as friends, relatives, or roomers?
[IF YES, ENTER NAME(S) ON ENUMERATION TABLE BELOW.]
7. Have we missed other household members now away from home who usually live here, for example, someone away on vacation or business, or in a hospital?
[IF YES, ENTER NAME(S) ON ENUMERATION TABLE BELOW.]

10. <div style="border: 1px solid black; padding: 2px; display: inline-block;">HAND CARD S2</div> Do any of the groups on this card represent (NAME)'s national origin?	11. What is (NAME)'s date of birth? (MM/DD/YYYY)	12. AGE CHART (ASK IF NECESSARY: How old was (NAME) on (his/her) last birthday?) IF LESS THAN 1, RECORD AGE IN MONTHS.	13. CODE SEX. (ASK IF NOT OBVIOUS: Is (NAME) male or female?)			SAMPLE PERSON ✓ NUMBER
MEXICAN..... 1 OTHER SPANISH/ PUERTO RICAN .. 2 HISPANIC 4 CUBAN..... 3 NONE OF ABOVE ... 5	____/____/____ ____/____/____	____/____/____ YRS 1 MOS 2	MALE 1 FEMALE 2			____
MEXICAN..... 1 OTHER SPANISH/ PUERTO RICAN .. 2 HISPANIC 4 CUBAN..... 3 NONE OF ABOVE ... 5	____/____/____ ____/____/____	____/____/____ YRS 1 MOS 2	MALE 1 FEMALE 2			____
MEXICAN..... 1 OTHER SPANISH/ PUERTO RICAN .. 2 HISPANIC 4 CUBAN..... 3 NONE OF ABOVE ... 5	____/____/____ ____/____/____	____/____/____ YRS 1 MOS 2	MALE 1 FEMALE 2			____
MEXICAN..... 1 OTHER SPANISH/ PUERTO RICAN .. 2 HISPANIC 4 CUBAN..... 3 NONE OF ABOVE ... 5	____/____/____ ____/____/____	____/____/____ YRS 1 MOS 2	MALE 1 FEMALE 2			____
MEXICAN..... 1 OTHER SPANISH/ PUERTO RICAN .. 2 HISPANIC 4 CUBAN..... 3 NONE OF ABOVE ... 5	____/____/____ ____/____/____	____/____/____ YRS 1 MOS 2	MALE 1 FEMALE 2			____
MEXICAN..... 1 OTHER SPANISH/ PUERTO RICAN .. 2 HISPANIC 4 CUBAN..... 3 NONE OF ABOVE ... 5	____/____/____ ____/____/____	____/____/____ YRS 1 MOS 2	MALE 1 FEMALE 2			____
MEXICAN..... 1 OTHER SPANISH/ PUERTO RICAN .. 2 HISPANIC 4 CUBAN..... 3 NONE OF ABOVE ... 5	____/____/____ ____/____/____	____/____/____ YRS 1 MOS 2	MALE 1 FEMALE 2			____
MEXICAN..... 1 OTHER SPANISH/ PUERTO RICAN .. 2 HISPANIC 4 CUBAN..... 3 NONE OF ABOVE ... 5	____/____/____ ____/____/____	____/____/____ YRS 1 MOS 2	MALE 1 FEMALE 2			____
MEXICAN..... 1 OTHER SPANISH/ PUERTO RICAN .. 2 HISPANIC 4 CUBAN..... 3 NONE OF ABOVE ... 5	____/____/____ ____/____/____	____/____/____ YRS 1 MOS 2	MALE 1 FEMALE 2			____

THIS PAGE INTENTIONALLY BLANK

PLACE BOX 1 LABEL HERE

|__|

14.

HAND
CARD
S3

SELECT CARD FOR NUMBER OF HOUSEHOLD MEMBERS. CARD SELECTED = S3-|__|__|. Here is a card showing different sources from which households may receive income. Please think for a moment about the various sources from which the members of this household received income last year -- during 1993.

Thinking about all of the sources of income, please tell me whether the total income received by the members of this household during 1993 was more or less than the amount at the bottom of this card.

MORE 1 (BOX 3)
LESS 2 (BOX 2) ----->
REFUSED 7
DON'T KNOW 8 } 14a

14a. ARE THERE ANY CHILDREN LESS THAN 6 YEARS OF AGE?

YES 1 (Q14b)
NO 2 (BOX 3)

14b. IS THERE A MALE 18 YEARS OF AGE OR OLDER?

YES 1 (BOX 3)
NO 2 (BOX 2) ----->

BOX 2.
SAMPLE PERSON
SELECTION

CHECK SAMPLE
PERSON COLUMN FOR
EACH PERSON IN AGE
AND SEX CATEGORY
MARKED YES IN BOX 1.

PLACE BOX 3 LABEL HERE

BOX 4. SAMPLE PERSON SELECTION

- a. CHECK SAMPLE PERSON COLUMN FOR EACH PERSON IN AGE AND SEX CATEGORY MARKED YES IN BOX 3.
b. IS ANY PERSON IN THE HOUSEHOLD CHECKED AS AN SP?

YES 1 (CHECK SAMPLE PERSON COLUMN FOR EACH PERSON
LESS THAN ONE YEAR OLD. THEN GO TO BOX 5)
NO 2 (Q15)

BOX 5. ASSIGNING SP NUMBERS

ASSIGN SAMPLE PERSON NUMBER FOR EACH PERSON WITH A CHECK IN SAMPLE PERSON COLUMN. PLEASE NUMBER IN SEQUENTIAL ORDER.

15. Would you give me your telephone number in case my office wants to check my work?

TELEPHONE NUMBER: () _____

NO TELEPHONE 2

REFUSED 7

BOX 6

WAS ANY SAMPLE PERSON SELECTED?

YES 1 (Q16)

NO 2 (Q19)

16. Are you or any members of this household planning to move within the next 6 weeks?

YES 1 (Q17)

NO 2 (Q19)

17. When are (you/he/she/they) planning to move?

MONTH

RECORD ANY AVAILABLE ADDRESS INFORMATION:

18. Please give me the name and telephone number of two relatives or friends who would know where the members of your household could be reached in case we have trouble reaching you. Please give me the names of persons who are not currently living in the household.

NAME #1: _____

TELEPHONE NUMBER: () _____ | |

NAME #2: _____

TELEPHONE NUMBER: () _____

19. DOES THE SCREENER LABEL REQUIRE THE MISSED DU PROCEDURE?

1 ☐

YES



- COMPLETE MISSED DU PROCEDURE AND FORM NOW. THEN:
- IF SP SELECTED, CONTINUE WITH HH QUESTIONNAIRE.
- IF NO SP SELECTED, TERMINATE.

2 ☐

NO



- IF SP SELECTED, CONTINUE WITH HH QUESTIONNAIRE.
- IF NO SP SELECTED, TERMINATE.

| |

TIME ENDED _____ AM
PM

MISSED DU PROCEDURE

A MISSED DU IS A UNIT WITHIN OR ATTACHED TO THE STRUCTURE IN WHICH THE SAMPLED DU IS LOCATED, SUCH AS A BASEMENT OR ATTIC APARTMENT OR AN APARTMENT OVER AN ATTACHED GARAGE. IT MAY ALSO BE AN APARTMENT WITHIN A MULTI UNIT STRUCTURE.

IF TWO OR MORE UNITS AT THIS ADDRESS (FOR EXAMPLE, AN APARTMENT BUILDING),
SKIP TO STEP 2; OTHERWISE, BEGIN WITH STEP 1.

1. AFTER COMPLETING SCREENER, SAY: We want to be sure that every household in this area has been given a chance to participate in this important survey. Are there any other living quarters at this address such as basement or attic apartments that we may have missed?
2. CHECK IN THE LOBBY AND AROUND THE OUTSIDE OF THIS (HOUSE/BUILDING) FOR ADDITIONAL UNITS OR ENTRANCES TO THIS ADDRESS.
3. RECORD DISCOVERED DUs ON FORM BELOW. NUMBER DISCOVERED DUs SEQUENTIALLY WITHIN SEGMENTS BEGINNING WITH DU NUMBER 501. EACH NUMBER MUST BE ASSIGNED ONLY ONCE WITHIN A SEGMENT. IF NO ADDITIONAL DUs, CHECK THE CIRCLE IN THE UPPER LEFT-HAND CORNER OF THE FORM.
4. IF 1 TO 4 MISSED DUs ARE DISCOVERED, FILL OUT AN ASSIGNMENT BOX ON A BLANK SCREENER FOR EACH (INSTRUCTIONS FOR HOW TO DO THIS ARE IN THE INTERVIEWER MANUAL) AND CONDUCT SCREENER INTERVIEW. ADD THE DISCOVERED DUs TO A NEW LISTING SHEET AND TO ALL COPIES OF THE INTERVIEWER REPORTS.
5. IF 5 OR MORE DUs ARE DISCOVERED, CALL SUPERVISOR FOR INSTRUCTIONS BEFORE YOU DO ANY ADDITIONAL SCREENER INTERVIEWS. ADD ALL OF THE DISCOVERED DUs TO A NEW LISTING SHEET AND THE SELECTED SAMPLE DUs TO ALL COPIES OF THE INTERVIEWER REPORTS. THEN FILL OUT AN ASSIGNMENT BOX ON A BLANK SCREENER FOR EACH SELECTED SAMPLE DU AND CONDUCT SCREENER INTERVIEW.

MISSED DU FORM

CHECK (✓) IF NO MISSED DU
AT SAMPLED STRUCTURE:



PSU # _____

SEG # _____

DU # ASSIGNED	ADDRESS OF DISCOVERED DU

TOTAL ADDITIONAL DUs

NEIGHBOR INFORMATION

|__|

PLACE BOX 6 LABEL HERE

|__|

20. ARE THERE ANY CHILDREN LESS THAN 6 YEARS OF AGE?

YES 1 (Q21)

NO 2 (BOX 8)

21. IS THERE A MALE 18 YEARS OF AGE OR OLDER?

YES 1 (BOX 8)

NO 2 (BOX 7) ----->

BOX 7

RECORD AGE AND SEX IN
SAMPLE PERSON CHART
BELOW FOR EACH PERSON
IN AGE AND SEX CATEGORY
IN BOX 6.

PLACE BOX 8 LABEL HERE

|__|

|__|

BOX 9. SAMPLE PERSON SELECTION

RECORD AGE AND SEX IN SAMPLE PERSON CHART BELOW FOR EACH PERSON IN AGE AND SEX CATEGORY IN BOX 8.

SAMPLE PERSON CHART		
AGE OR AGE RANGE	SEX	SAMPLE PERSON NUMBER

BOX 10. ASSIGNING SP NUMBERS

RECORD SAMPLE PERSON NUMBER FOR EACH PERSON RECORDED IN SAMPLE PERSON CHART ABOVE. PLEASE
NUMBER IN SEQUENTIAL ORDER.

RECORD NAME, ADDRESS, AND TELEPHONE NUMBER OF THE INDIVIDUALS PROVIDING THIS INFORMATION.

- _____
- _____

OMB #: 0586-0014

Expires: October 31, 1996

WHAT WE EAT IN AMERICA: 1994-1996

HOUSEHOLD QUESTIONNAIRE

PLACE CASE LABEL HERE

INTERVIEWER NAME: _____

|_|_|_|:|_|_|_| AM 1
TIME STARTED PM 2

INTERVIEWER ID: |_|_|_|_|

DATE OF INTERVIEW: |_|_|_|-|_|_|_|-19|_|_|_|
MO DA YR

|_|_|_|:|_|_|_| AM 1
TIME ENDED PM 2

RESPONDENT'S FIRST NAME: _____

LINE LETTER: |_|_|

CHECK SCREENER. WAS
Q14 ANSWERED "MORE" OR
"LESS"?

YES 1
NO 2

[COPY ANSWER INTO
BOX 5, PG. 13]

FOR HOME OFFICE USE ONLY

DATE RECEIVED: _____

VERIFIER ID: _____

MC: ____ YES ____ NO

BATCH #: _____

Conducted for the United States Department of Agriculture
by Westat Inc., Rockville, MD

TIME STARTED _____ AM
PM

HOUSEHOLD QUESTIONNAIRE

1. Let's begin by talking about the general food shopping practice of this household. On the average, how often does someone do a major food shopping for this household? Would you say . . .

More than once a week, 1
Once a week, 2
Once every two weeks, 3
Once a month or less, or 4
Never? 5 (Q3)

2. In what kind of store is this major food shopping usually done? Is it . . .

A supermarket, 1
A small store, or 2
Someplace else? (SPECIFY)..... 3

_____ | _ | _ |

3. During the last three months, how much money has this household spent per week or per month at grocery stores, including the stores' salad bars, soup bars, delis, etc.? Include purchases made with food stamps.

\$ | _ | _ | _ | , | _ | _ | _ | .00 PER WEEK 1
PER MONTH 2

4. You said this household spent (AMOUNT IN Q3) per (week/month). About how much of this amount, if any, was for nonfood items, such as cleaning or paper products, food bought for feeding a pet, or cigarettes? (IF NONE, ENTER "0".)

\$ | _ | _ | _ | , | _ | _ | _ | .00 PER WEEK 1
PER MONTH 2

5. During the last three months, how much has this household spent per week or per month on food at specialty stores -- such as bakeries, liquor stores, delicatessens, meat markets, vegetable stands, health food stores, and other similar places -- when the food was brought into your home? (IF NONE, ENTER "0".)

\$ | _ | _ | _ | , | _ | _ | _ | .00 PER WEEK 1
PER MONTH 2

6. During the last three months, how much has this household spent per week or per month at fast food or carryout places when the food was brought into your home? (IF NONE, ENTER "0".)

\$ | _ | _ | _ | , | _ | _ | _ | .00 PER WEEK 1
PER MONTH 2

7. During the last three months, what has been this household's usual amount of money spent per week or per month for food bought and eaten away from home? Include food and beverages that never entered your home, that is, eaten at restaurants, fast food places, cafeterias at work or at school or purchased from vending machines, for all household members. (IF NONE, ENTER "0".)

\$|_|_|_|_|_|_|_|_|.00 PER WEEK 1
PER MONTH 2

8. Now I have a few questions about the persons who live in this household.

[IF ONE ADULT FEMALE, CONFIRM AND RECORD.

IF MORE THAN ONE ADULT FEMALE, ASK:]

Who is the female head of household?

(IF NECESSARY, SAY: For the purposes of this survey, the female head of household is the woman who other household members think of as being in charge of household matters, that is, the woman of the house.)

NAME: _____ LINE LETTER: |_| (RECORD FIRST NAME
AND LINE LETTER FROM
NO FEMALE HEAD2 SCREENER)

9. [IF ONE ADULT MALE, CONFIRM AND RECORD.

IF MORE THAN ONE ADULT MALE, ASK:]

Who is the male head of household?

NAME: _____ LINE LETTER: |_| (RECORD FIRST NAME
AND LINE LETTER FROM
NO MALE HEAD2 SCREENER)

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RECORD FIRST NAME(S) AND LINE LETTER(S) OF ALL HOUSEHOLD MEMBERS WHO ARE **15 YEARS OF AGE OR OLDER** STARTING WITH REFERENCE PERSON ON LINE LETTER A. THEN ASK Qs 10-16 IN SEQUENCE FOR EACH PERSON.

CODER USE ONLY:

|_|_|

LINE LETTER: | A |

LINE LETTER: |_|_|

<p>10. Looking at this card, what is the highest grade or year of regular school (you have/<u>NAME</u> has) ever completed? (CIRCLE CODE FOR HIGHEST GRADE OR YEAR.)</p> <div style="border: 1px solid black; padding: 5px; width: fit-content;">HAND CARD H1</div>	<p>NEVER ATTENDED SCHOOL OR KINDERGARTEN ONLY: 00</p> <p>ELEMENTARY: 01 02 03 04 05 06 07 08</p> <p>HIGH SCHOOL: 09 10 11 12 or GED</p> <p>COLLEGE: 13 14 15 16 17+ (1) (2) (3) (4) (5+)</p>	<p>NEVER ATTENDED SCHOOL OR KINDERGARTEN ONLY: 00</p> <p>ELEMENTARY: 01 02 03 04 05 06 07 08</p> <p>HIGH SCHOOL: 09 10 11 12 or GED</p> <p>COLLEGE: 13 14 15 16 17+ (1) (2) (3) (4) (5+)</p>
<p>11. Last week, did (you/ <u>NAME</u>) work at all at a paid job or in (your/his/her) own business or farm?</p>	<p>YES 1 (Q13) NO 2</p>	<p>YES 1 (Q13) NO 2</p>
<p>12. Do you have a paid job from which you were temporarily absent?</p>	<p>YES 1 (Q14) NO 2 (Q16)</p>	<p>YES 1 (Q14) NO 2 (Q16)</p>
<p>13. How many hours did (you/he/she) work at all jobs in the last week? Include all overtime hours that (you/he/she) worked and hours on any part-time jobs as well as (your/his/her) principal job.</p>	<p> _ _ _ # OF HOURS</p>	<p> _ _ _ # OF HOURS</p>
<p>14. How many hours a week do/does (you/he/she) usually work?</p>	<p> _ _ _ # OF HOURS</p>	<p> _ _ _ # OF HOURS</p>
<p>15. Which of the categories on this card comes closest to describing the paid work [you do/ (he/she) does].</p> <div style="border: 1px solid black; padding: 5px; width: fit-content;">HAND CARD H2</div>	<p>01 02 03 04 05 06 07 08 (NP or Q17)</p>	<p>01 02 03 04 05 06 07 08 (NP or Q17)</p>
<p>16. Which of the reasons on this card best describes why (you were/<u>NAME</u> was) not working at a paid job last week? (CIRCLE ONLY ONE)</p> <div style="border: 1px solid black; padding: 5px; width: fit-content;">HAND CARD H3</div>	<p>LOOKING FOR WORK01 GOING TO SCHOOL02 KEEPING HOUSE03 RETIRED04 UNABLE TO WORK05 OTHER (SPECIFY)06</p> <p>_____</p> <p>_____ _ _ </p>	<p>LOOKING FOR WORK01 GOING TO SCHOOL02 KEEPING HOUSE03 RETIRED04 UNABLE TO WORK05 OTHER (SPECIFY)06</p> <p>_____</p> <p>_____ _ _ </p>

_____ LINE LETTER: __	_____ LINE LETTER: __	_____ LINE LETTER: __
NEVER ATTENDED SCHOOL OR KINDERGARTEN ONLY: 00 ELEMENTARY: 01 02 03 04 05 06 07 08 HIGH SCHOOL: 09 10 11 12 or GED COLLEGE: 13 14 15 16 17+ (1) (2) (3) (4) (5+)	NEVER ATTENDED SCHOOL OR KINDERGARTEN ONLY: 00 ELEMENTARY: 01 02 03 04 05 06 07 08 HIGH SCHOOL: 09 10 11 12 or GED COLLEGE: 13 14 15 16 17+ (1) (2) (3) (4) (5+)	NEVER ATTENDED SCHOOL OR KINDERGARTEN ONLY: 00 ELEMENTARY: 01 02 03 04 05 06 07 08 HIGH SCHOOL: 09 10 11 12 or GED COLLEGE: 13 14 15 16 17+ (1) (2) (3) (4) (5+)
YES 1 (Q13) NO 2	YES 1 (Q13) NO 2	YES 1 (Q13) NO 2
YES 1 (Q14) NO 2 (Q16)	YES 1 (Q14) NO 2 (Q16)	YES 1 (Q14) NO 2 (Q16)
__ __ __ # OF HOURS	__ __ __ # OF HOURS	__ __ __ # OF HOURS
__ __ __ # OF HOURS	__ __ __ # OF HOURS	__ __ __ # OF HOURS
01 02 03 04 05 06 07 08 (NP or Q17)	01 02 03 04 05 06 07 08 (NP or Q17)	01 02 03 04 05 06 07 08 (NP or Q17)
LOOKING FOR WORK01 GOING TO SCHOOL02 KEEPING HOUSE03 RETIRED04 UNABLE TO WORK05 OTHER (SPECIFY)06 _____ _____ __ __	LOOKING FOR WORK01 GOING TO SCHOOL02 KEEPING HOUSE03 RETIRED04 UNABLE TO WORK05 OTHER (SPECIFY)06 _____ _____ __ __	LOOKING FOR WORK01 GOING TO SCHOOL02 KEEPING HOUSE03 RETIRED04 UNABLE TO WORK05 OTHER (SPECIFY)06 _____ _____ __ __

17. In regard to this dwelling, is the property . . .

- Owned or being bought by
someone living in this household, 1
- Rented with payment required, or 2
- Occupied without payment of rent
required? 3

18. Looking at this card, what is the main source of the water used for cooking in your home? Is it . . .

HAND
CARD
H4

- the community water supply, 1
 - your own well or rain cistern, 2
 - your own spring or a public spring, 3
 - bottled water you purchase, or 4
 - something else? (SPECIFY) 5
- _____

|_|_|

19. What is the main source of the water used in your home for preparing beverages such as coffee, tea, juices, and baby formula? (Is it . . .

HAND
CARD
H4

- the community water supply, 1
 - your own well or rain cistern, 2
 - your own spring or a public spring, 3
 - bottled water you purchase, or 4
 - something else? (SPECIFY) 5
- _____

|_|_|

20. What is the main source of plain drinking water in your home? (Is it . . .

HAND
CARD
H4

- the community water supply, 1
 - your own well or rain cistern, 2
 - your own spring or a public spring, 3
 - bottled water you purchase, or 4
 - something else? (SPECIFY) 5
- _____

|_|_|

21. Returning to the topic of food, who usually plans the meals? (RECORD FIRST NAME AND LINE LETTER FROM SCREENER. IF NOT A HOUSEHOLD MEMBER, ENTER "Y" AS THE LINE LETTER.)

IF ALL HOUSEHOLD MEMBERS, ENTER "Z" HERE: |__| AND GO TO NEXT QUESTION.

NAME: _____

LINE LETTER: |__|

NAME: _____

LINE LETTER: |__|

NAME: _____

LINE LETTER: |__|

22. Who usually does the major food shopping? (RECORD FIRST NAME AND LINE LETTER FROM SCREENER. IF NOT A HOUSEHOLD MEMBER, ENTER "Y" AS THE LINE LETTER.)

IF ALL HOUSEHOLD MEMBERS, ENTER "Z" HERE: |__| AND GO TO NEXT QUESTION.

NAME: _____

LINE LETTER: |__|

NAME: _____

LINE LETTER: |__|

NAME: _____

LINE LETTER: |__|

23. And who usually prepares the food? (RECORD FIRST NAME AND LINE LETTER FROM SCREENER. IF NOT A HOUSEHOLD MEMBER, ENTER "Y" AS THE LINE LETTER.)

IF ALL HOUSEHOLD MEMBERS, ENTER "Z" HERE: |__| AND GO TO NEXT QUESTION.

NAME: _____

LINE LETTER: |__|

NAME: _____

LINE LETTER: |__|

NAME: _____

LINE LETTER: |__|

24. Is anyone in this household on any kind of diet either to lose weight or for some other health-related reason?

YES 1
NO 2 (BOX 1)

25. Which of these diets on this card (are/is) (you/he/she/they) on? (CIRCLE ALL THAT APPLY)

HAND CARD H5

WEIGHT LOSS OR LOW CALORIE DIET 01
LOW FAT OR CHOLESTEROL DIET 02
LOW SALT OR SODIUM DIET 03
SUGAR FREE OR LOW SUGAR DIET 04
LOW FIBER DIET 05
HIGH FIBER DIET 06
DIABETIC DIET 07
OTHER DIET (PLEASE DESCRIBE) 08

_____|_|_|

BOX 1

CHECK SCREENER. ARE THERE ANY **FEMALES** IN THE HOUSEHOLD **10 THROUGH 55 YEARS** OF AGE?

YES 1 (Q26)
NO 2 (BOX 2)

26. Is anyone in this household now pregnant?

YES 1
NO 2 (BOX 2)

27. Please tell me who. (RECORD FIRST NAME AND LINE LETTER FROM SCREENER.)

NAME: _____

LINE LETTER: |_|_|

NAME: _____

LINE LETTER: |_|_|

28. How many months pregnant (are you/is NAME)?

|_|_|
MONTHS PREGNANT
LESS THAN ONE MONTH 00

|_|_|
MONTHS PREGNANT
LESS THAN ONE MONTH 00

BOX 2

CHECK SCREENER. ARE THERE ANY **CHILDREN** IN THE HOUSEHOLD **3 YEARS OLD OR LESS?**

YES 1 (Q29)
NO 2 (Q32)

29. Are any children currently being breast fed?

YES 1
NO 2 (Q32)

30. Please tell me who. (RECORD FIRST NAME AND LINE LETTER FROM SCREENER.)

NAME: _____

LINE LETTER: |__|

NAME: _____

LINE LETTER: |__|

31. Please tell me the name of the woman who is breast feeding (CHILD). (RECORD FIRST NAME AND LINE LETTER FROM SCREENER FOR EACH CHILD.)?

NAME: _____

LINE LETTER: |__|

NAME: _____

LINE LETTER: |__|

32. Is anyone in this household receiving benefits under the WIC Program at the present time? (That is the Women, Infants and Children Program.)

YES 1
NO 2
DON'T KNOW 8 } (BOX 3)

33. Please tell me who in this household is receiving WIC benefits. (RECORD FIRST NAME AND LINE LETTER FROM SCREENER.)

NAME: _____

LINE LETTER: |__|

NAME: _____

LINE LETTER: |__|

NAME: _____

LINE LETTER: |__|

NAME: _____

LINE LETTER: |__|

NAME: _____

LINE LETTER: |__|

34. How long (have you/has NAME) been receiving WIC benefits?

|__| |__| MONTHS 1
YEARS 2

|__| |__| MONTHS 1
YEARS 2

|__| |__| MONTHS 1
YEARS 2

|__| |__| MONTHS 1
YEARS 2

|__| |__| MONTHS 1
YEARS 2

BOX 3

CHECK SCREENER. ARE THERE ANY **CHILDREN** IN THE HOUSEHOLD AGE
5 THROUGH 18 YEARS? (REMEMBER TO INCLUDE 18 YEAR OLDS)

YES 1 [RECORD FIRST NAME AND LINE LETTER IN GRID BELOW.
THEN ASK Qs 35-41 IN SEQUENCE FOR EACH CHILD.]

NO 2 (BOX 4)

CODER USE ONLY:

|_|_|_|

NAME: _____

LINE LETTER: |_|_|

NAME: _____

LINE LETTER: |_|_|

NAME: _____

LINE LETTER: |_|_|

Now I would like to ask about school breakfast and lunch programs.

35. Does (NAME) attend a kindergarten, grade school, junior or high school?	YES 1 NO 2 (NP)	YES 1 NO 2 (NP)	YES 1 NO 2 (NP)
36. Does (NAME) attend a school which serves school lunches? These are <u>complete</u> lunches costing a <u>fixed price every day</u> .	YES 1 NO 2 (Q39)	YES 1 NO 2 (Q39)	YES 1 NO 2 (Q39)
37. During the school year, approximately how many times a week does (he/she) usually get a complete school lunch?	TIMES: _ _ /WEEK 1 /MONTH 2 NONE 0 (Q39)	TIMES: _ _ /WEEK 1 /MONTH 2 NONE 0 (Q39)	TIMES: _ _ /WEEK 1 /MONTH 2 NONE 0 (Q39)
38. Does (he/she) get these lunches free, at a reduced price or does (he/she) pay full price?	FREE 1 REDUCED PRICE 2 FULL PRICE 3 DON'T KNOW 8	FREE 1 REDUCED PRICE 2 FULL PRICE 3 DON'T KNOW 8	FREE 1 REDUCED PRICE 2 FULL PRICE 3 DON'T KNOW 8
39. Does (NAME) attend a school which serves a <u>complete</u> breakfast costing a <u>fixed price every day</u> ?	YES 1 NO 2 (NP)	YES 1 NO 2 (NP)	YES 1 NO 2 (NP)
40. During the school year, approximately how many times a week does (NAME) usually get a complete breakfast at school?	TIMES: _ _ /WEEK 1 /MONTH 2 NONE 0 (NP)	TIMES: _ _ /WEEK 1 /MONTH: 2 NONE 0 (NP)	TIMES: _ _ /WEEK 1 /MONTH: 2 NONE 0 (NP)
41. Does (he/she) get these breakfasts free, at a reduced price or does (he/she) pay full price?	FREE 1 REDUCED PRICE 2 FULL PRICE 3 DON'T KNOW 8	FREE 1 REDUCED PRICE 2 FULL PRICE 3 DON'T KNOW 8	FREE 1 REDUCED PRICE 2 FULL PRICE 3 DON'T KNOW 8

NAME: _____ LINE LETTER: __	NAME: _____ LINE LETTER: __	NAME: _____ LINE LETTER: __	NAME: _____ LINE LETTER: __
---------------------------------	---------------------------------	---------------------------------	---------------------------------

YES 1 NO 2 (NP)	YES 1 NO 2 (NP)	YES 1 NO 2 (NP)	YES 1 NO 2 (NP)
YES 1 NO 2 (Q39)	YES 1 NO 2 (Q39)	YES 1 NO 2 (Q39)	YES 1 NO 2 (Q39)
TIMES: __ /WEEK 1 /MONTH 2 NONE 0 (Q39)	TIMES: __ /WEEK 1 /MONTH 2 NONE 0 (Q39)	TIMES: __ /WEEK 1 /MONTH 2 NONE 0 (Q39)	TIMES: __ /WEEK 1 /MONTH 2 NONE 0 (Q39)
FREE 1 REDUCED PRICE 2 FULL PRICE 3 DON'T KNOW 8	FREE 1 REDUCED PRICE 2 FULL PRICE 3 DON'T KNOW 8	FREE 1 REDUCED PRICE 2 FULL PRICE 3 DON'T KNOW 8	FREE 1 REDUCED PRICE 2 FULL PRICE 3 DON'T KNOW 8
YES 1 NO 2 (NP)	YES 1 NO 2 (NP)	YES 1 NO 2 (NP)	YES 1 NO 2 (NP)
TIMES: __ /WEEK 1 /MONTH 2 NONE 0 (NP)	TIMES: __ /WEEK 1 /MONTH 2 NONE 0 (NP)	TIMES: __ /WEEK 1 /MONTH 2 NONE 0 (NP)	TIMES: __ /WEEK 1 /MONTH 2 NONE 0 (NP)
FREE 1 REDUCED PRICE 2 FULL PRICE 3 DON'T KNOW 8	FREE 1 REDUCED PRICE 2 FULL PRICE 3 DON'T KNOW 8	FREE 1 REDUCED PRICE 2 FULL PRICE 3 DON'T KNOW 8	FREE 1 REDUCED PRICE 2 FULL PRICE 3 DON'T KNOW 8

BOX 4

CHECK SCREENER. ARE THERE ANY **CHILDREN** IN THE HOUSEHOLD AGE **1 THROUGH 5 YEARS**?YES 1 [RECORD FIRST NAME AND LINE LETTER BELOW.
THEN ASK Q42.]

NO 2 (Q43)

CODER USE ONLY:

|_|_|

NAME:

LINE LETTER:

|_|

NAME:

LINE LETTER:

|_|

NAME:

LINE LETTER:

|_|

NAME:

LINE LETTER:

|_|

42. Does (NAME) attend a child care program which gives (him/her) any meals or snacks?

YES 1
NO 2YES 1
NO 2YES 1
NO 2YES 1
NO 2

43. Which of these statements best describes the food eaten in your household in the last 3 months—enough of the kinds of food we want to eat; enough but not always the
- kinds
- of food we want to eat; sometimes not enough to eat; or often not enough to eat?

ENOUGH OF THE KINDS OF FOOD WE WANT TO EAT 1 (BOX 5)

ENOUGH BUT NOT ALWAYS THE KINDS OF FOOD WE

WANT TO EAT 2 (BOX 5)

SOMETIMES NOT ENOUGH TO EAT 3

OFTEN NOT ENOUGH TO EAT 4

44. In which of the last three months did your household not have enough to eat? (CIRCLE ALL THAT APPLY.)

LAST MONTH 1

THE MONTH BEFORE LAST 2

TWO MONTHS BEFORE LAST 3

45. Which of the following reasons explain why your household did not have enough food:

- a. Did not have enough money, food stamps, or WIC vouchers to buy food or beverages.

YES 1

NO 2

- b. Did not have working appliances for storing or preparing foods (such as stove or refrigerator).

YES 1

NO 2

- c. Did not have transportation or had transportation problems.

YES 1

NO 2

- d. Some other reason?

YES (EXPLAIN)..... 1

NO 2

|_|_|

46. Last month, how many days did your household not have food, or money or food stamps to buy food?

|_|_|_|
NUMBER OF DAYS

BOX 5

CHECK COVER. WAS SCREENER Q14 ANSWERED "MORE" OR "LESS"?

YES 1 (Q48)
NO 2

47.

HAND
CARD
S3

SELECT CARD FOR NUMBER OF HOUSEHOLD MEMBERS. CARD SELECTED = S3-|_|_||. Here is a card showing different sources from which households may receive income. Please think for a moment about the various sources from which the members of this household received income last year – during 1993.

Thinking about all of the sources of income, please tell me whether the total income received by the members of this household during 1993 was more or less than the amount at the bottom of this card.

MORE 1
LESS 2

48. Did any member of this household receive any income from their own business or farm in 1993?

YES 1
NO 2 (Q50)

49. What was the total net income after business expenses received in 1993 by all members of this household who have their own business or farm?

TOTAL NET INCOME \$|_|_|_|_|,|_|_|_|_|.00

50. Did any member of this household receive any income from interest, dividends, or annuities in 1993?

YES 1
NO 2 (Q52)

51. What was the total amount of income from interest, dividends, and annuities received in 1993 by all members of this household?

\$|_|_|_|_|,|_|_|_|_|.00

52. During 1993, approximately how much income from all sources did you and other household members have before income taxes? (Please give me your best estimate.)

TOTAL INCOME \$|_|_|_|_|,|_|_|_|_|.00 (Q54)

NOT A HOUSEHOLD UNIT IN 1993999996 (Q54)

REFUSED999997 (Q53)

DON'T KNOW999998 (Q53)

53. Please tell me which letter on this card best represents your combined household income before taxes for 1993.

HAND
CARD
H6

LETTER: |_|_|

54. Now, consider cash, savings or checking accounts, stocks, bonds, mutual funds and certificates of deposits. Do the members of this household have more than \$5,000 of such savings or cash assets at this time?

YES 1 (Q56)

NO 2

55. What letter on this card best represents the total savings or cash assets of all household members at this time?

HAND
CARD
H7

LETTER: |_|_|

56. <div style="border: 1px solid black; padding: 5px; display: inline-block;">HAND CARD H8</div> Here is a card that lists a number of income sources I'm going to ask about. Please tell me whether any member of this household received income <u>last month</u> from (SOURCE).		57. What was the total income received <u>last month</u> by all members of your household -- <u>before taxes and other deductions</u> -- from (SOURCE)?
a. Wages or salary from a job including tips or commissions?	YES 1 → NO 2	\$ _ _ _ _ , _ _ _ _ .00
b. Any Social Security or Supplemental Security income?	YES 1 → NO 2	\$ _ _ _ _ , _ _ _ _ .00
c. Income from pension or retirement?	YES 1 → NO 2	\$ _ _ _ _ , _ _ _ _ .00
d. Unemployment or Workmen's Compensation?	YES 1 → NO 2	\$ _ _ _ _ , _ _ _ _ .00
e. AFDC, general assistance or other public assistance program? (Do not include food stamps or WIC benefits)	YES 1 → NO 2	\$ _ _ _ _ , _ _ _ _ .00
f. Other sources, such as alimony, child support, and other regular monthly contributions from persons not living in this household?	YES 1 → NO 2	\$ _ _ _ _ , _ _ _ _ .00

BOX 6

CHECK Q56 AND Q57. IS THERE ANY RESPONSE OF DON'T KNOW OR REFUSED?

YES 1 (Q58)
NO 2 (Q59)

58.

HAND
CARD
H9

 Would you please tell me whether the total income received by the members of this household during (LAST MONTH) was more or less than the amount on this card next to the number (NUMBER OF MEMBERS IN THE HOUSEHOLD).

MORE 1
LESS 2

59. Did any member of your household receive food stamps in any of the last 12 months? [IF RESPONDENT IS UNCERTAIN, SAY: That is, from (NAME OF CURRENT MONTH) 1993 through (NAME OF LAST MONTH), 1994].

YES 1
NO 2
DON'T KNOW 8

60. Is anyone in your household authorized to receive food stamps at the present time? (An authorized person is one whose name appears on a certification card.)

YES 1
NO 2 (END)

61. Is everyone in your household covered under this food stamp allotment?

YES 1 (Q64)
NO 2

62. Which persons are covered?

NAME: _____	NAME: _____
LINE LETTER: __	LINE LETTER: __
NAME: _____	NAME: _____
LINE LETTER: __	LINE LETTER: __
NAME: _____	NAME: _____
LINE LETTER: __	LINE LETTER: __

63.

HAND
CARD
H8

 Think now just about these people, that is (READ NAMES IN Q62) and their income from the sources on this card. Approximately how much income from all sources did they have before taxes in (NAME OF LAST MONTH)? (Please give me your best estimate for just these people receiving food stamps.)

\$|_|_|_|_|,|_|_|_|_|.00

64. On about what date did your household last get food stamps?

|_|_|_| |_|_|_| 19 |_|_|_|
MONTH DAY YEAR

HAVE NOT RECEIVED THEM YET969696 (END)
DON'T KNOW989898

65. What was the total amount of stamps you received at that time? (Please give your best estimate.)

\$|_|_|_|_|,|_|_|_|_|.00

DON'T KNOW999998

TIME ENDED _____ AM
PM

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what we eat in **AMERICA** 1994-96

WHAT WE EAT IN AMERICA: 1994-1996
CONTINUING SURVEY OF FOOD INTAKES BY INDIVIDUALS

Conducted for:

United States Department of Agriculture

Conducted by:

Westat
1650 Research Blvd.
Rockville, MD 20850

OMB #: 0586-0014

Expires: October 31, 1996

WHAT WE EAT IN AMERICA: 1994-1996

DAY ONE INTAKE QUESTIONNAIRE

PLACE CASE LABEL HERE

SAMPLE PERSON #: |__|__|

INTERVIEWER NAME: _____

|__|__|:|__|__| AM 1
TIME STARTED PM 2

INTERVIEWER ID: |__|__|

DATE OF INTERVIEW: |__|__|-|__|__|-19 |__|__|
MO DA YR

|__|__|:|__|__| AM 1
TIME ENDED PM 2

DAY OF INTERVIEW: _____

INTERVIEW CONDUCTED:

IN PERSON ①
BY TELEPHONE 2

FIRST NAME OF
SAMPLE PERSON: _____

DATE OF BIRTH: |__|__|-|__|__|-|__|__|__|__|
MO DA YEAR

OR
AGE: |__|__| YRS 1
MOS 2

SEX: M 1 F 2

FOR HOME OFFICE USE ONLY

DATE RECEIVED: _____

VERIFIER ID: _____

MC: ____ YES ____ NO

BATCH #: _____

Conducted for the United States Department of Agriculture
by Westat Inc., Rockville, MD

DAY 1

1.



I'd like you to tell me everything (you/NAME) had to eat and drink all day yesterday, (DAY), from midnight to midnight. Include everything (you/NAME) ate and drank at home and away -- even snacks, coffee, and alcoholic beverages. [DO NOT INTERRUPT RESPONDENT. USE HANDCARD I1 IF NECESSARY.]

[IF INFANT OR CHILD SP:] I'd like you to tell me everything (NAME) had to eat and drink all day yesterday, (DAY), from midnight to midnight. Include everything (he/she) ate and drank at home and away, including snacks and drinks (and bottles or breast milk).

[WHEN RESPONDENT STOPS, ASK: Anything else?]

Now I'm going to ask you specific questions about the foods and beverages we just listed. When you remember anything else you ate or drank as we go along, please tell me.

2.

About what time did (you/NAME) begin to (eat/drink) the (FOOD)? [OR CONFIRM IF RECORDED ON QUICK LIST]

3.

Looking at this card, please tell me what (you/NAME) would call this occasion? [OR CONFIRM IF RECORDED ON QUICK LIST]



- 01 BREAKFAST
- 02 BRUNCH
- 03 LUNCH
- 04 DINNER
- 05 SUPPER
- 06 FOOD AND/OR BEVERAGE BREAK
- SNACK
- ALCOHOLIC BEVERAGE
- OTHER BEVERAGE
- 07 FEEDING (INFANT ONLY)
- 08 OTHER (SPECIFY)

BOX 1

TRANSFER QUICK LIST FOOD TO GRID. CHECK OFF FOOD IN QUICK LIST AS IT IS TRANSFERRED.

4.

SEE FIB COLUMN Q4 FOR FOOD PROBES.

5.

[SEE FIB COLUMN Q5 FOR AMOUNT SPECIFICATIONS.] How much of this (FOOD) did (you/NAME) actually (eat/drink)?

6.

[ASK IF NOT OBVIOUS:] Did (you/NAME) have (NEXT QUICK LIST ITEM) with your (OCCASION) at (TIME) or was that at another time?
[IF SAME OCCASION, GO BACK TO BOX 1. IF ANOTHER TIME, GO BACK TO Q2.]

INDIVIDUAL INTAKE FORM

Q1		Q2	Q3		Q4
Quick List of Food Items	✓	Time	Occ. (HAND-CARD I2)	Food/Drink and Additions	Description of Food/Drink and Ingredient Amount
A.		a		1.	
B.		p			
C.		a		2.	
D.		p			
E.		a		3.	
F.		p			
G.		a		4.	
H.		p			
I.		a		5.	
J.		p			
K.		a		6.	
L.		p			
M.		a		7.	
N.		p			
O.		a		8.	
P.		p			
Q.		a		9.	
R.		p			
S.		a		10.	
T.		p			
U.		a		11.	
V.		p			
W.		a		12.	
X.		p			
		a		13.	
		p			
		a		14.	
		p			
		a		15.	
		p			
		a		16.	
		p			

[illegible]

INDIVIDUAL INTAKE FORM (continued)

Q2 Time	Q3 Occ. (HAND- CARD I2)	Food/Drink and Additions	Q4 Description of Food/Drink and Ingredient Amount
a p		17.	
a p		18.	
a p		19.	
a p		20.	
a p		21.	
a p		22.	
a p		23.	
a p		24.	
a p		25.	
a p		26.	
a p		27.	
a p		28.	
a p		29.	
a p		30.	
a p		31.	
a p		32.	

[illegible]

INDIVIDUAL INTAKE FORM (continued)

Q2 Time	Q3 Occ. (HAND- CARD I2)	Food/Drink and Additions	Q4 Description of Food/Drink and Ingredient Amount
a p		33.	
a p		34.	
a p		35.	
a p		36.	
a p		37.	
a p		38.	
a p		39.	
a p		40.	
a p		41.	
a p		42.	
a p		43.	
a p		44.	
a p		45.	
a p		46.	
a p		47.	
a p		48.	

[illegible]

REVIEW: Now let's see if I have everything. I'd like you to try to remember anything else (you/NAME) ate or drank yesterday, that you haven't already told me about, including anything (you/he/she) ate or drank while preparing a meal or while waiting to eat.

- a. At (EARLIEST TIME) (you/NAME) had (FOODS) for (EARLIEST OCCASION). . .
Did (you/he/she) have anything to eat or drink before that, starting at midnight?
- b. Next, at (TIME) (you/he/she) had (FOODS) for (OCCASION). . .
Did (you/he/she) have anything to eat or drink between (LAST OCCASION) at (LAST TIME) and (THIS OCCASION) at (THIS TIME)?
[REPEAT b FOR EACH OCCASION]
- c. Did (you/he/she) have anything to eat or drink yesterday after (LAST TIME) but before midnight?

Now let's go back to the beginning of the day and find out where (you/NAME), or other people who live here, obtained the food (you/he/she) ate and where (you/he/she) ate it.

7. (Looking at this card) Where did (you/he/she) obtain this (FOOD/MOST OF THE INGREDIENTS FOR THIS FOOD)?

HAND
CARD
I3

- 01 STORE, SUCH AS
SUPERMARKET, GROCERY STORE,
OR WAREHOUSE, CONVENIENCE
STORE, DRUG STORE, OR
GAS STATION
SPECIALTY STORE SUCH AS BAKERY,
DELI, SEAFOOD, ETHNIC FOOD,
HEALTH FOOD
COMMISSARY
PRODUCE STAND OR FARMER'S
MARKET
- 02 RESTAURANT WITH WAITER/WAITRESS
SERVICE
- 03 FAST FOOD PLACE, PIZZA PLACE
- 04 BAR, TAVERN, LOUNGE
- 05 SCHOOL CAFETERIA
- 06 OTHER CAFETERIA
- 07 VENDING MACHINE
- 08 CHILD CARE CENTER, FAMILY DAY
CARE HOME, ADULT DAY CARE

- 09 SOUP KITCHEN, SHELTER, FOOD PANTRY
- 10 MEALS ON WHEELS
- 11 OTHER COMMUNITY FOOD PROGRAM
- 12 GROWN OR CAUGHT BY YOU OR SOMEONE
YOU KNOW

IF FISH OR SEAFOOD, ASK: Did it come from a...

- 71 Freshwater lake, pond, or river
- 72 The ocean, or
- 73 A bay, sound, or estuary?
- 74 DON'T KNOW BODY OF WATER

- 13 SOMEONE ELSE/GIFT

SOME OTHER PLACE (PLEASE DESCRIBE)

- 14 MAIL ORDER PURCHASE
- 15 COMMON COFFEE POT OR
SNACK TRAY
- 16 RESIDENTIAL DINING FACILITY
- 17 OTHER (SPECIFY)
- 98 DON'T KNOW

8. Did (you/NAME) (eat/drink) this (FOOD) at your home?

IF YES, GO BACK TO Q7 FOR NEXT FOOD.
IF NO, GO TO Q9.

9. Before (you/NAME) (ate/drank) this particular (FOOD), was it ever at your home?

REPEAT Q7-9 FOR EACH FOOD.

10. Was the amount of food that (you/NAME) ate yesterday about usual, less than usual, or more than usual?

USUAL 1 (Q13)
 LESS THAN USUAL 2 (Q11)
 MORE THAN USUAL 3 (Q12)

11. What is the main reason the amount (you/NAME) ate yesterday was less than usual?

SICKNESS 01
 SHORT OF MONEY 02
 TRAVELING 03
 AT A SOCIAL OCCASION OR
 ON A SPECIAL DAY 04
 ON VACATION 05
 TOO BUSY 06
 NOT HUNGRY 07
 DIETING 08
 FASTING 09
 BORED OR STRESSED 10
 SOME OTHER REASON (SPECIFY) 11

} (Q13)

|_|_|

12. What is the main reason the amount (you/NAME) ate yesterday was more than usual?

TRAVELING 1
 AT A SOCIAL OCCASION OR
 ON A SPECIAL DAY 2
 ON VACATION 3
 VERY HUNGRY 4
 BORED OR STRESSED 5
 SOME OTHER REASON 6
 (SPECIFY) _____

|_|_|

13. What type of salt, if any, (do you/does NAME) add to (your/his/her) food at the table? Would you say it is ordinary salt, seasoned salt, lite salt, or a salt substitute?

HAND
CARD
14

ORDINARY SALT/SEA SALT 1
 SEASONED SALT OR OTHER
 FLAVORED SALT 2
 LITE SALT 3
 SALT SUBSTITUTE 4
 NONE 5 (Q15)
 DON'T KNOW 8 (Q15)

14. How often (do you/does NAME) add (ANSWER IN Q13) to (your/his/her) food at the table? Is it always, frequently, sometimes, or rarely?

ALWAYS 1
 FREQUENTLY 2
 SOMETIMES 3
 RARELY 4

Now I'd like you to think about all of the plain drinking water that (you/NAME) had yesterday, regardless of where (you/he/she) drank it. By plain drinking water, I mean tap water or any bottled water that is not carbonated, with nothing added to it, not even lemon.

15. How many ounces of plain drinking water did (you/he/she) drink yesterday?

|_|_|_|
OUNCES

NONE000 (Q18)

16. How much of this plain drinking water came from your home? Would you say all, most, some, or none?

ALL 1 (Q18)
MOST 2
SOME 3
NONE 4

17. What was the main source of plain drinking water that did not come from your home? Was it tap water, water from a drinking fountain, bottled water, or something else?

TAP WATER AND/OR DRINKING FOUNTAIN 1
BOTTLED WATER 2
OTHER SOURCE 3
(SPECIFY)
DON'T KNOW 8

|_|_|

18. (Are you/Is NAME) on any kind of diet either to lose weight or for some other health-related reason?

YES 1
NO 2 (Q22)

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CIRCLE ALL THAT APPLY AND ASK Q20 AND Q21 IN SEQUENCE FOR EACH DIET CIRCLED.

		WEIGHT LOSS OR LOW CALORIE DIET	LOW FAT OR CHOLESTEROL DIET	LOW SALT OR SODIUM DIET
19.	<div style="border: 1px solid black; padding: 5px; display: inline-block;">HAND CARD I6</div> <p>Looking at this card, please tell me which of these diets (you are/NAME is) on.</p>	01	02	03
20.	<p>(Are you/Is NAME) on this (ANSWER IN Q19) because . . .</p> <p>A doctor or dietitian suggested or prescribed it?</p> <p>A medical condition runs in your family?</p> <p>You joined another person on his/her diet?</p> <p>You want to maintain or improve your health?</p> <p>You want to lose weight?</p> <p>Some other reason? (IF YES, SPECIFY)</p>	<p style="text-align: center;"><u>YES</u> <u>NO</u></p> <p>..... 1 2</p> <p>..... 1 2</p> <p>..... 1 2</p> <p>..... 1 2</p> <p>..... 1 2</p> <p>..... 1 2</p> <p>..... 1 2</p> <p style="text-align: center;">(SPECIFY) _ _ _ </p>	<p style="text-align: center;"><u>YES</u> <u>NO</u></p> <p>..... 1 2</p> <p>..... 1 2</p> <p>..... 1 2</p> <p>..... 1 2</p> <p>..... 1 2</p> <p>..... 1 2</p> <p>..... 1 2</p> <p style="text-align: center;">(SPECIFY) _ _ _ </p>	<p style="text-align: center;"><u>YES</u> <u>NO</u></p> <p>..... 1 2</p> <p>..... 1 2</p> <p>..... 1 2</p> <p>..... 1 2</p> <p>..... 1 2</p> <p>..... 1 2</p> <p>..... 1 2</p> <p style="text-align: center;">(SPECIFY) _ _ _ </p>
21.	<div style="border: 1px solid black; padding: 5px; display: inline-block;">HAND CARD I7</div> <p>Looking at this card, please tell me which of these <u>best</u> describes the source of (your/his/her) (ANSWER IN Q19). (CODE ONLY ONE)</p> <p>AN ORGANIZED WEIGHT LOSS PROGRAM</p> <p>A DOCTOR OR DIETITIAN</p> <p>SOMETHING YOU READ OR HEARD ABOUT</p> <p>SOMETHING YOU MADE UP</p> <p>SOMETHING ELSE (SPECIFY UNDER CODE 5)</p>	<p>..... 1</p> <p>..... 2</p> <p>..... 3</p> <p>..... 4</p> <p>..... 5</p> <p style="text-align: center;">(SPECIFY) _ _ _ </p>	<p>..... 1</p> <p>..... 2</p> <p>..... 3</p> <p>..... 4</p> <p>..... 5</p> <p style="text-align: center;">(SPECIFY) _ _ _ </p>	<p>..... 1</p> <p>..... 2</p> <p>..... 3</p> <p>..... 4</p> <p>..... 5</p> <p style="text-align: center;">(SPECIFY) _ _ _ </p>

SUGAR FREE OR LOW SUGAR DIET	LOW FIBER DIET	HIGH FIBER DIET	DIABETIC DIET	OTHER DIET <hr/> (SPECIFY)
04	05	06	07	08 _ _
<div>YES NO</div> <div>..... 1 2</div> <div>..... 1 2</div> <div>..... 1 2</div> <div>..... 1 2</div> <div>..... 1 2</div> <div>..... 1 2</div> <div>..... 1 2</div> <div>..... 1 2</div> <div>(SPECIFY) _ _ </div>	<div>YES NO</div> <div>..... 1 2</div> <div>..... 1 2</div> <div>..... 1 2</div> <div>..... 1 2</div> <div>..... 1 2</div> <div>..... 1 2</div> <div>..... 1 2</div> <div>..... 1 2</div> <div>(SPECIFY) _ _ </div>	<div>YES NO</div> <div>..... 1 2</div> <div>..... 1 2</div> <div>..... 1 2</div> <div>..... 1 2</div> <div>..... 1 2</div> <div>..... 1 2</div> <div>..... 1 2</div> <div>..... 1 2</div> <div>(SPECIFY) _ _ </div>	<div>YES NO</div> <div>..... 1 2</div> <div>..... 1 2</div> <div>..... 1 2</div> <div>..... 1 2</div> <div>..... 1 2</div> <div>..... 1 2</div> <div>..... 1 2</div> <div>..... 1 2</div> <div>(SPECIFY) _ _ </div>	<div>YES NO</div> <div>..... 1 2</div> <div>..... 1 2</div> <div>..... 1 2</div> <div>..... 1 2</div> <div>..... 1 2</div> <div>..... 1 2</div> <div>..... 1 2</div> <div>..... 1 2</div> <div>(SPECIFY) _ _ </div>
<div>..... 1</div> <div>..... 2</div> <div>..... 3</div> <div>..... 4</div> <div>..... 5</div> <div>(SPECIFY) _ _ </div>	<div>..... 1</div> <div>..... 2</div> <div>..... 3</div> <div>..... 4</div> <div>..... 5</div> <div>(SPECIFY) _ _ </div>	<div>..... 1</div> <div>..... 2</div> <div>..... 3</div> <div>..... 4</div> <div>..... 5</div> <div>(SPECIFY) _ _ </div>	<div>..... 1</div> <div>..... 2</div> <div>..... 3</div> <div>..... 4</div> <div>..... 5</div> <div>(SPECIFY) _ _ </div>	<div>..... 1</div> <div>..... 2</div> <div>..... 3</div> <div>..... 4</div> <div>..... 5</div> <div>(SPECIFY) _ _ </div>

22. Do you consider (yourself/NAME) to be a vegetarian?

YES 1
NO 2

23. How often, if at all, (do you/does NAME) take any vitamin or mineral supplement in pill or liquid form? Would you say every day or almost every day, every so often, or not at all?

EVERY DAY OR ALMOST
EVERY DAY 1
EVERY SO OFTEN 2
NOT AT ALL 3 (Q26)

24.

HAND
CARD
I8

 Looking at this card, which of these types of supplements (do you/does NAME) usually take... a multivitamin; multivitamin with iron or other minerals; combination of Vitamin C and iron; or single vitamins or minerals? (CIRCLE ALL THAT APPLY)

MULTIVITAMIN 1
MULTIVITAMIN WITH IRON
OR OTHER MINERALS 2
COMBINATION OF VITAMIN C
AND IRON 3
SINGLE VITAMINS/MINERALS 4

BOX 2

IS "4" CIRCLED IN Q24?

YES 1 (Q25)
NO 2 (Q26)

25.

HAND
CARD
I9

 Looking at this card, which of these single vitamins and minerals (do you/does he/she) usually take? (CIRCLE ALL THAT APPLY)

VITAMIN A 01
VITAMIN B/B COMPLEX 02
VITAMIN C 03
VITAMIN D 04
VITAMIN E 05
CALCIUM 06
FOLACIN 07
FLUORIDE 08
IRON 09
ZINC 10
SELENIUM 11
CHROMIUM 12
SOMETHING ELSE (SPECIFY) 13

26. (Do you/Does NAME) take a fish oil supplement?

YES 1
NO 2

27. (Do you/Does he/she) take a fiber supplement?

YES 1
NO 2

28. (Have you/Has NAME) ever had (your/his/her) blood cholesterol checked?

YES 1
NO 2
DON'T KNOW 8

29. How tall (are you/is he/she) without shoes?

|_|_|
FEET |_|_|_|
INCHES

30. About how much (do you/does NAME) weigh without shoes?

|_|_|_|_|
POUNDS

31. In general, would you say (your/his/her) health is excellent, very good, good, fair, or poor?

EXCELLENT 1
VERY GOOD 2
GOOD 3
FAIR 4
POOR 5

32. (Do you/Does NAME) have any food allergies that make it necessary to avoid certain foods?

YES 1
NO 2 (Q34)

33. What food allergies (do you/does NAME) have? (CIRCLE ALL THAT APPLY.)

WHEAT 01
COW'S MILK 02
EGGS 03
FISH OR SHELLFISH 04
CORN 05
PEANUTS 06
OTHER NUTS 07
SOY PRODUCTS 08
OTHER (SPECIFY) 09

_	_
_	_
_	_

34. Has a doctor ever told (you/NAME) that (you have/he/she has): (CIRCLE A NUMBER FOR EACH)

	<u>YES</u>	<u>NO</u>
Diabetes?	1	2
High blood pressure (Hypertension)?	1	2
Heart disease?	1	2
Cancer?	1	2
Osteoporosis?	1	2
High blood cholesterol?	1	2
Stroke?	1	2

35. How many hours did (you/NAME) watch television or videotapes yesterday?

|_|_|
OF HOURS

BOX 3

SAMPLE PERSON IS . . .

LESS THAN 12 YEARS OF AGE 1 (TIME ENDED)
12 YEARS OF AGE OR OLDER 2 (Q36)

36. How often do you exercise vigorously enough to work up a sweat?

DAILY 1
5-6 TIMES PER WEEK 2
2-4 TIMES PER WEEK 3
ONCE A WEEK 4
1-3 TIMES PER MONTH 5
RARELY OR NEVER 6

37. Have you smoked 100 or more cigarettes during your entire life?

YES 1
NO 2 (Q40)

38. Do you smoke cigarettes now?

YES 1
NO 2 (Q40)

39. On average, how many cigarettes per day do you smoke?

|_|_|_|_|
PER DAY

40. The last few questions are about alcoholic beverages, including beer, ale, wine, wine coolers, liquor such as whiskey, rum, gin, and vodka, and mixed drinks containing liquor.

During the past 12 months, that is, since last (NAME OF MONTH), have you consumed any alcoholic beverage?

YES 1
NO 2 (TIME ENDED)

41. During the past 12 months, have you consumed any:

	<u>YES</u>	<u>NO</u>
Beer or ale?	1	2
Wine or wine coolers?	1	2
Liquor, such as whiskey, rum, gin, or vodka, or mixed drinks containing liquor?	1	2
Any other alcoholic beverages?	1	2
(SPECIFY) _____		

|_|_|_|

THANK RESPONDENT

CODER USE ONLY.
QLIST: |_|_|_|

TIME ENDED _____ AM
PM

INTERVIEWER OBSERVATION FORM

[DO NOT READ THESE QUESTIONS TO THE RESPONDENT.]

A. WHO WAS THE MAIN RESPONDENT FOR THIS INTERVIEW?

SAMPLE PERSON	01
MOTHER OF SAMPLE PERSON	02
FATHER OF SAMPLE PERSON	03
WIFE OF SAMPLE PERSON	04
HUSBAND OF SAMPLE PERSON	05
DAUGHTER OF SAMPLE PERSON	06
SON OF SAMPLE PERSON	07
SISTER OF SAMPLE PERSON	08
BROTHER OF SAMPLE PERSON	09
GRANDPARENT OF SAMPLE PERSON	10
AUNT OF SAMPLE PERSON	11
UNCLE OF SAMPLE PERSON	12
SOMEONE ELSE (SPECIFY)	13

|_|_|

B. WHO, IF ANYONE, HELPED IN RESPONDING FOR THIS INTERVIEW? (CIRCLE ALL THAT APPLY)

NO ONE	00
SAMPLE PERSON	01
MOTHER OF SAMPLE PERSON	02
FATHER OF SAMPLE PERSON	03
WIFE OF SAMPLE PERSON	04
HUSBAND OF SAMPLE PERSON	05
DAUGHTER OF SAMPLE PERSON	06
SON OF SAMPLE PERSON	07
SISTER OF SAMPLE PERSON	08
BROTHER OF SAMPLE PERSON	09
GRANDPARENT OF SAMPLE PERSON	10
AUNT OF SAMPLE PERSON	11
UNCLE OF SAMPLE PERSON	12
SOMEONE ELSE (SPECIFY) - OTHER THAN INTERVIEWER	13

|_|_|

|_|_|

|_|_|

C. DID YOU OR THE RESPONDENT HAVE DIFFICULTY WITH THIS INTAKE INTERVIEW?

YES	1
NO	2 (BOX 4)

D. WHAT WAS THE REASON FOR THIS DIFFICULTY?

BOX 4

SAMPLE PERSON IS . . .

LESS THAN 12 (QF)

12 OR OLDER (QE)

E. DO YOU THINK OTHER PEOPLE COULD HAVE HEARD THE ANSWERS TO Q37-41?

YES 1

NO 2

F. IS DATA RETRIEVAL NECESSARY FOR DAYCARE/BABY-SITTER/SCHOOL/OR OTHER CARETAKER?

YES 1

NO 2

[IF YES, RECORD SOURCE INFORMATION ON FOLLOW-UP CALL RECORD ON HOUSEHOLD FOLDER.]

what we eat in **AMERICA** 1994-96

WHAT WE EAT IN AMERICA: 1994-1996
CONTINUING SURVEY OF FOOD INTAKES BY INDIVIDUALS

Conducted for:

United States Department of Agriculture

Conducted by:

Westat
1650 Research Blvd.
Rockville, MD 20850

OMB #: 0586-0014

Expires: October 31, 1996

WHAT WE EAT IN AMERICA: 1994-1996

DAY TWO INTAKE QUESTIONNAIRE

PLACE CASE LABEL HERE

SAMPLE PERSON #: |__|__|

INTERVIEWER NAME: _____

|__|__|:|__|__| AM 1
TIME STARTED PM 2

INTERVIEWER ID: |__|__|

DATE OF INTERVIEW: |__|__| - |__|__| - 19 |__|__|
MO DA YR

|__|__|:|__|__| AM 1
TIME ENDED PM 2

DAY OF INTERVIEW: _____

INTERVIEW CONDUCTED:

IN PERSON 1
BY TELEPHONE 2

FIRST NAME OF
SAMPLE PERSON: _____

DATE OF BIRTH: |__|__| - |__|__| - |__|__|__|__|
MO DA YEAR

OR
AGE: |__|__| YRS 1
MOS 2

SEX: M 1 F 2

FOR HOME OFFICE USE ONLY

DATE RECEIVED: _____

VERIFIER ID: _____

MC: ____ YES ____ NO

BATCH #: _____

Conducted for the United States Department of Agriculture
by Westat Inc., Rockville, MD

DAY 2

1.

HAND
CARD
I1

 I'd like you to give me the list of everything (you/NAME) had to eat and drink all day yesterday, (DAY), from midnight to midnight. I'll ask you for the detailed descriptions and amounts later. Please include everything (you/NAME) ate and drank at home and away -- even snacks, coffee, and alcoholic beverages. [DO NOT INTERRUPT RESPONDENT. USE HANDCARD I1 IF NECESSARY.]

[IF INFANT OR CHILD SP:] I'd like you to give me the list of everything (NAME) had to eat and drink all day yesterday, (DAY), from midnight to midnight. I'll ask you for the detailed descriptions and amounts later. Please include everything (he/she) ate and drank at home and away, including snacks and drinks (and bottles or breast milk).

[WHEN RESPONDENT STOPS, ASK: Anything else?]

Now I'm going to ask you the specific questions about the foods and beverages we just listed. When you remember anything else you ate or drank as we go along, please tell me.

2. About what time did (you/NAME) begin to (eat/drink) the (FOOD)? [OR CONFIRM IF RECORDED ON QUICK LIST]
3. Looking at this card, please tell me what (you/NAME) would call this occasion? [OR CONFIRM IF RECORDED ON QUICK LIST]



- 01 BREAKFAST
- 02 BRUNCH
- 03 LUNCH
- 04 DINNER
- 05 SUPPER
- 06 FOOD AND/OR BEVERAGE BREAK
 - SNACK
 - ALCOHOLIC BEVERAGE
 - OTHER BEVERAGE
- 07 FEEDING (INFANT ONLY)
- 08 OTHER (SPECIFY)

BOX 1

TRANSFER QUICK LIST FOOD TO GRID. CHECK OFF FOOD IN
QUICK LIST AS IT IS TRANSFERRED.

4. SEE FIB COLUMN Q4 FOR FOOD PROBES.
5. [SEE FIB COLUMN Q5 FOR AMOUNT SPECIFICATIONS.] How much of this (FOOD) did (you/NAME) actually (eat/drink)?
6. [ASK IF NOT OBVIOUS:] Did (you/NAME) have (NEXT QUICK LIST ITEM) with your (OCCASION) at (TIME) or was that at another time?
[IF SAME OCCASION, GO BACK TO BOX 1. IF ANOTHER TIME, GO BACK TO Q2.]

INDIVIDUAL INTAKE FORM

Q1 Quick List of Food Items		Q2 Time	Q3 Occ. (HAND-CARD I2)	Food/Drink and Additions	Q4 Description of Food/Drink and Ingredient Amount
A.	✓	a		1.	
B.		p			
C.		a		2.	
D.		p			
E.		a		3.	
F.		p			
G.		a		4.	
H.		p			
I.		a		5.	
J.		p			
K.		a		6.	
L.		p			
M.		a		7.	
N.		p			
O.		a		8.	
P.		p			
Q.		a		9.	
R.		p		10.	
S.		a			
T.		p		11.	
U.		a			
V.		p		12.	
W.		a			
X.		p		13.	
		a		14.	
		p		15.	
		a		16.	
		p			

INDIVIDUAL INTAKE FORM (continued)

Q2 Time	Q3 Occ. (HAND- CARD I2)	Food/Drink and Additions	Q4 Description of Food/Drink and Ingredient Amount
a p		17.	
a p		18.	
a p		19.	
a p		20.	
a p		21.	
a p		22.	
a p		23.	
a p		24.	
a p		25.	
a p		26.	
a p		27.	
a p		28.	
a p		29.	
a p		30.	
a p		31.	
a p		32.	

[illegible]

INDIVIDUAL INTAKE FORM (continued)

Q2 Time	Q3 Occ. (HAND- CARD I2)	Food/Drink and Additions	Q4 Description of Food/Drink and Ingredient Amount
a p		33.	
a p		34.	
a p		35.	
a p		36.	
a p		37.	
a p		38.	
a p		39.	
a p		40.	
a p		41.	
a p		42.	
a p		43.	
a p		44.	
a p		45.	
a p		46.	
a p		47.	
a p		48.	

Q5 How much of this (FOOD) did you actually (eat/drink)?	Q7 Where Obtained (HAND CARD I3)	Q8 Eaten At Home	Q9 Ever At Home
		YES 1 (Q7) NO 2	YES 1 NO 2
		YES 1 (Q7) NO 2	YES 1 NO 2
		YES 1 (Q7) NO 2	YES 1 NO 2
		YES 1 (Q7) NO 2	YES 1 NO 2
		YES 1 (Q7) NO 2	YES 1 NO 2
		YES 1 (Q7) NO 2	YES 1 NO 2
		YES 1 (Q7) NO 2	YES 1 NO 2
		YES 1 (Q7) NO 2	YES 1 NO 2
		YES 1 (Q7) NO 2	YES 1 NO 2
		YES 1 (Q7) NO 2	YES 1 NO 2
		YES 1 (Q7) NO 2	YES 1 NO 2
		YES 1 (Q7) NO 2	YES 1 NO 2
		YES 1 (Q7) NO 2	YES 1 NO 2
		YES 1 (Q7) NO 2	YES 1 NO 2
		YES 1 (Q7) NO 2	YES 1 NO 2
		YES 1 (Q7) NO 2	YES 1 NO 2
		YES 1 (Q7) NO 2	YES 1 NO 2

REVIEW: Now let's see if I have everything. I'd like you to try to remember anything else (you/NAME) ate or drank yesterday, that you haven't already told me about, including anything (you/he/she) ate or drank while preparing a meal or while waiting to eat.

- a. At (EARLIEST TIME) (you/NAME) had (FOODS) for (EARLIEST OCCASION). . .
Did (you/he/she) have anything else to eat or drink before that, starting at midnight?
- b. Next, at (TIME) (you/he/she) had (FOODS) for (OCCASION). . .
Did (you/he/she) have anything else to eat or drink with that (LAST OCCASION) or between (OCCASION) at (LAST TIME) and (THIS OCCASION) at (THIS TIME)?
[REPEAT b FOR EACH OCCASION]
- c. Did (you/he/she) have anything to eat or drink yesterday after (LAST TIME) but before midnight?

Now let's go back to the beginning of the day and find out where (you/NAME), or other people who live here, obtained the food (you/he/she) ate and where (you/he/she) ate it.

7. (Looking at this card,) Where did (you/he/she) obtain this (FOOD/MOST OF THE INGREDIENTS FOR THIS FOOD)?



- 01 STORE, SUCH AS
SUPERMARKET, GROCERY STORE,
OR WAREHOUSE, CONVENIENCE
STORE, DRUG STORE, OR
GAS STATION
SPECIALTY STORE SUCH AS BAKERY,
DELI, SEAFOOD, ETHNIC FOOD,
HEALTH FOOD
COMMISSARY
PRODUCE STAND OR FARMER'S
MARKET
- 02 RESTAURANT WITH WAITER/WAITRESS
SERVICE
- 03 FAST FOOD PLACE, PIZZA PLACE
- 04 BAR, TAVERN, LOUNGE
- 05 SCHOOL CAFETERIA
- 06 OTHER CAFETERIA
- 07 VENDING MACHINE
- 08 CHILD CARE CENTER, FAMILY DAY
CARE HOME, ADULT DAY CARE

- 09 SOUP KITCHEN, SHELTER, FOOD PANTRY
- 10 MEALS ON WHEELS
- 11 OTHER COMMUNITY FOOD PROGRAM
- 12 GROWN OR CAUGHT BY YOU OR SOMEONE
YOU KNOW

IF FISH OR SEAFOOD, ASK: Did it come from a...

- 71 Freshwater lake, pond, or river
- 72 The ocean, or
- 73 A bay, sound, or estuary?
- 74 DON'T KNOW BODY OF WATER

13 SOMEONE ELSE/GIFT

SOME OTHER PLACE (PLEASE DESCRIBE)

- 14 MAIL ORDER PURCHASE
- 15 COMMON COFFEE POT OR
SNACK TRAY
- 16 RESIDENTIAL DINING FACILITY
- 17 OTHER (SPECIFY)
- 98 DON'T KNOW

8. Did (you/NAME) (eat/drink) this (FOOD) at your home?

IF YES, GO BACK TO Q7 FOR NEXT FOOD.
IF NO, GO TO Q9.

9. Before (you/NAME) (ate/drank) this particular (FOOD), was it ever at your home?

REPEAT Q7-9 FOR EACH FOOD.

10. Was the amount of food that (you/NAME) ate yesterday about usual, less than usual, or more than usual?

USUAL 1 (Q13)
 LESS THAN USUAL 2 (Q11)
 MORE THAN USUAL 3 (Q12)

11. What is the main reason the amount (you/NAME) ate yesterday was less than usual?

SICKNESS 01
 SHORT OF MONEY 02
 TRAVELING 03
 AT A SOCIAL OCCASION OR
 ON A SPECIAL DAY 04
 ON VACATION 05
 TOO BUSY 06
 NOT HUNGRY 07
 DIETING 08
 FASTING 09
 BORED OR STRESSED 10
 SOME OTHER REASON (SPECIFY) 11 } (Q13)

_____ |__|__|

12. What is the main reason the amount (you/NAME) ate yesterday was more than usual?

TRAVELING 1
 AT A SOCIAL OCCASION OR
 ON A SPECIAL DAY 2
 ON VACATION 3
 VERY HUNGRY 4
 BORED OR STRESSED 5
 SOME OTHER REASON 6
 (SPECIFY) _____

|__|__|

HAND
CARD
15

Now I'd like you to think about all of the plain drinking water that (you/NAME) had yesterday, regardless of where (you/he/she) drank it. By plain drinking water, I mean tap water or any bottled water that is not carbonated, with nothing added to it, not even lemon.

13. How many ounces of plain drinking water did (you/he/she) drink yesterday?

|__|__|__|
OUNCES

NONE000 (Q16)

14. How much of this plain drinking water came from your home? Would you say all, most, some, or none?

ALL 1 (Q16)
 MOST 2
 SOME 3
 NONE 4

15. What was the main source of plain drinking water that did not come from your home? Was it tap water, water from a drinking fountain, bottled water, or something else?

TAP WATER AND/OR DRINKING FOUNTAIN 1
 BOTTLED WATER 2
 OTHER SOURCE 3
 (SPECIFY)
 DON'T KNOW 8

|__|__|

16. How many hours did (you/NAME) watch television or videotapes yesterday?

|__|__|
 # OF HOURS

17. During the past 12 months, that is, since last (NAME OF MONTH), (have you/has NAME) eaten any (FOOD) in any form?

	YES	NO		YES	NO
Artichokes	1	2	Grapefruit, other than juice	1	2
Asparagus	1	2	Cantaloupe	1	2
Broccoli	1	2	Honeydew melon	1	2
Brussels sprouts	1	2	Watermelon	1	2
Cauliflower	1	2	Nectarines	1	2
Eggplant	1	2	Pears	1	2
Kale	1	2	Plums	1	2
Swiss chard	1	2	Rhubarb	1	2
Okra	1	2	Chicken liver	1	2
Spinach	1	2	Beef, veal or pork liver	1	2
Summer squash (thin skin)	1	2	Lamb	1	2
Winter squash (hard skin)	1	2	Shellfish	1	2
Sweet potato or yams	1	2	Fish, other than shellfish		
Turnips, other than greens	1	2	or canned fish	1	2
Avocado or guacamole	1	2	IF YES: Was any of the		
			fish you ate caught by		
			you or someone you know?	1	2

THANK RESPONDENT

CODER USE ONLY.
 QLIST: |__|__|

TIME ENDED _____

AM
 PM

INTERVIEWER OBSERVATION FORM

[DO NOT READ THESE QUESTIONS TO THE RESPONDENT.]

A. WHO WAS THE MAIN RESPONDENT FOR THIS INTERVIEW?

SAMPLE PERSON 01
 MOTHER OF SAMPLE PERSON 02
 FATHER OF SAMPLE PERSON 03
 WIFE OF SAMPLE PERSON 04
 HUSBAND OF SAMPLE PERSON 05
 DAUGHTER OF SAMPLE PERSON 06
 SON OF SAMPLE PERSON 07
 SISTER OF SAMPLE PERSON 08
 BROTHER OF SAMPLE PERSON 09
 GRANDPARENT OF SAMPLE PERSON 10
 AUNT OF SAMPLE PERSON 11
 UNCLE OF SAMPLE PERSON 12
 SOMEONE ELSE (SPECIFY) 13

|_|_|

B. WHO, IF ANYONE, HELPED IN RESPONDING FOR THIS INTERVIEW? (CIRCLE ALL THAT APPLY)

NO ONE 00
 SAMPLE PERSON 01
 MOTHER OF SAMPLE PERSON 02
 FATHER OF SAMPLE PERSON 03
 WIFE OF SAMPLE PERSON 04
 HUSBAND OF SAMPLE PERSON 05
 DAUGHTER OF SAMPLE PERSON 06
 SON OF SAMPLE PERSON 07
 SISTER OF SAMPLE PERSON 08
 BROTHER OF SAMPLE PERSON 09
 GRANDPARENT OF SAMPLE PERSON 10
 AUNT OF SAMPLE PERSON 11
 UNCLE OF SAMPLE PERSON 12
 SOMEONE ELSE (SPECIFY) - OTHER
 THAN INTERVIEWER 13

|_|_|

|_|_|

|_|_|

C. DID YOU OR THE RESPONDENT HAVE DIFFICULTY WITH THIS INTAKE INTERVIEW?

YES 1
 NO 2 (QF)

D. WHAT WAS THE REASON FOR THIS DIFFICULTY?

BOX 4 AND QUESTION E NOT ASKED FOR DAY 2.

F. IS DATA RETRIEVAL NECESSARY FOR DAYCARE/BABY-SITTER/SCHOOL/OR OTHER CARETAKER?

YES 1
NO 2

[IF YES, RECORD SOURCE INFORMATION ON FOLLOW-UP CALL RECORD ON HOUSEHOLD FOLDER.]

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what we eat in AMERICA 1994-96

WHAT WE EAT IN AMERICA: 1994-1996
CONTINUING SURVEY OF FOOD INTAKES BY INDIVIDUALS

Conducted for:

United States Department of Agriculture

Conducted by:

Westat
1650 Research Blvd.
Rockville, MD 20850

WHAT WE EAT IN AMERICA: 1994-1996

DIET AND HEALTH KNOWLEDGE SURVEY QUESTIONNAIRE

PLACE CASE LABEL HERE

[BE SURE TO PREPARE QUESTIONNAIRE BY MARKING
RANDOM STARTS BEFORE CONTACTING RESPONDENT.]

RANDOM START LABEL

INTRODUCTION: (ASK TO SPEAK WITH SAMPLE PERSON.)

Hello, I am (YOUR NAME) from Westat. (I/We) spoke with you recently as part of the food survey Westat is conducting for the United States Department of Agriculture. At that time (I/we) said (I/we) would get back in touch with you to ask a few more questions about your opinions on your diet, health, food shopping, and related topics. Before I begin, I just need to verify your name and age to make sure that I am interviewing the correct person. Is this (NAME OF SAMPLE PERSON)? And you are (about) (AGE) years old? (IF NOT CORRECT SAMPLE PERSON, THANK RESPONDENT AND ATTEMPT TO SPEAK WITH CORRECT SAMPLE PERSON.)

SAMPLE PERSON #: |__|__|

INTERVIEWER NAME: _____

|__|__| : |__|__| AM..... 1
TIME STARTED PM..... 2

INTERVIEWER ID: |__|__|__|

|__|__| : |__|__| AM..... 1
TIME ENDED PM..... 2

DATE OF INTERVIEW: |__|__| - |__|__| - 19 |__|__|
MO DAY YR

CONDUCTED:
IN PERSON 1
BY TELEPHONE 2

DAY OF INTERVIEW: _____

SP'S FIRST NAME: _____

DATE OF BIRTH: |__|__| - |__|__| - |__|__|__|
MO DAY YEAR

OR

AGE: |__|__|__| YRS ①
MOS 2

SEX: M 1 F 2

FOR HOME OFFICE USE ONLY

DATE RECEIVED: _____

VERIFIER ID: _____

MC: YES NO

BATCH #: _____

TIME STARTED _____ AM
PM

1. Let's begin by talking about the number of servings from different food groups that a person should eat each day. How many servings from the (FOOD GROUP) would you say a person of your age and sex should eat each day for good health? (DO NOT ACCEPT A RANGE OF SERVINGS.)

What about the (NEXT FOOD GROUP)?

IF ASKED, SAY: "Count as a serving whatever you consider a serving to be."

START
AT "X"

	FOOD GROUP	NUMBER OF SERVINGS	DON'T KNOW
a.	Fruit Group?	_ _ _	98
b.	Vegetable Group?	_ _ _	98
c.	Milk, Yogurt, and Cheese Group?	_ _ _	98
d.	Bread, Cereal, Rice, and Pasta Group?	_ _ _	98
e.	Meat, Poultry, Fish, Dry Beans, and Eggs Group?	_ _ _	98

2. Now I am going to read some statements about what people eat. Please tell me if you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with the statement: (READ STATEMENT)

What about (NEXT STATEMENT)?

IF NEEDED, SAY: "Do you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with the statement?"

START
AT "X"

STATEMENT		Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree
a.	Choosing a healthy diet is just a matter of knowing what foods are good and what foods are bad.	4	3	2	1
b.	Eating a variety of foods each day probably gives you all the vitamins and minerals you need.	4	3	2	1
c.	Some people are born to be fat and some thin; there is not much you can do to change this.	4	3	2	1
d.	Starchy foods, like bread, potatoes, and rice, make people fat.	4	3	2	1
e.	There are so many recommendations about healthy ways to eat, it's hard to know what to believe.	4	3	2	1
f.	What you eat can make a big difference in your chance of getting a disease, like heart disease or cancer.	4	3	2	1
g.	The things I eat and drink now are healthy so there is no reason for me to make changes.	4	3	2	1
STATEMENT		Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree

3. Next, let's talk about your own diet. Compared to what is healthy, do you think your diet is too low, too high, or about right in (STATEMENT)?

What about (NEXT STATEMENT)?

IF NEEDED, SAY: "Would you say your diet is too low, too high, or about right in that?"

IF NEEDED, SAY: "The question is asking about nutrients from foods, not from vitamin pills."

START
AT "X"

	STATEMENT	Too Low	Too High	About Right	DON'T KNOW
a.	Calories?	1	2	3	8
b.	Calcium?	1	2	3	8
c.	Iron?	1	2	3	8
d.	Vitamin C?	1	2	3	8
e.	Protein?	1	2	3	8
f.	Fat?	1	2	3	8
g.	Saturated fat?	1	2	3	8
h.	Cholesterol?	1	2	3	8
i.	Salt or sodium?	1	2	3	8
j.	Fiber?	1	2	3	8
k.	Sugar and sweets?	1	2	3	8
	STATEMENT	Too Low	Too High	About Right	DON'T KNOW

4. To you personally, is it very important, somewhat important, not too important, or not at all important to (STATEMENT)?

To you personally, how important is it to (NEXT STATEMENT)?

IF NEEDED, SAY: "Is that very important, somewhat important, not too important, or not at all important to you personally?"

IF NEEDED, SAY: "The question is not asking about your actual eating habits, it is asking about the importance of the statement to you personally."

START
AT "X"

STATEMENT	Very Important	Somewhat Important	Not Too Important	Not At All Important	DON'T KNOW
a. Use salt or sodium only in moderation?	4	3	2	1	8
b. Choose a diet low in saturated fat?	4	3	2	1	8
c. Choose a diet with plenty of fruits and vegetables?	4	3	2	1	8
d. Use sugars only in moderation?	4	3	2	1	8
e. Choose a diet with adequate fiber?	4	3	2	1	8
f. Eat a variety of foods?	4	3	2	1	8
g. Maintain a healthy weight?	4	3	2	1	8
h. Choose a diet low in fat?	4	3	2	1	8
i. Choose a diet low in cholesterol?	4	3	2	1	8
j. Choose a diet with plenty of breads, cereals, rice, and pasta?	4	3	2	1	8
k. Eat at least two servings of dairy products daily?	4	3	2	1	8
STATEMENT	Very Important	Somewhat Important	Not Too Important	Not At All Important	DON'T KNOW

START AT "X"

5. Have you heard about any health problems caused by (BEHAVIOR)?

(ASK QUESTIONS 5A - 5G AND 6 UNTIL COMPLETE, THEN GO TO QUESTION 7.)

6. What health problems are these? Any other problems? (DO NOT READ PROBLEMS) (CIRCLE CODE IN THE APPROPRIATE ROW BELOW)

01 -- Arteriosclerosis/Atherosclerosis

02 -- Arthritis

03 -- Bone problems/Rickets

04 -- Breathing problems

05 -- Cancer (All types)

07 -- Cavities/Caries

01 -- Clogged arteries

06 -- Colitis/Colon problems

06 -- Constipation

01 -- Coronary disease

08 -- Diabetes

06 -- Digestive problems

06 -- Diverticulosis

09 -- Edema

10 -- Fatigue

15 -- Fat/Overweight

01 -- Hardening of the arteries

11 -- Heart problems/Heart attack

12 -- High blood cholesterol

12 -- High blood pressure

08 -- High blood sugar

13 -- Hyperactivity

12 -- Hypertension

06 -- Irregularity

14 -- Kidney disease

10 -- Lack of energy

15 -- Obesity/Overweight

03 -- Osteoporosis

14 -- Renal disease

16 -- Stroke

10 -- Tiredness

07 -- Tooth problems

09 -- Water (fluid) retention

17 -- HEALTH PROBLEMS NOT SPECIFIED

00 -- Other disease/problem (SPECIFY)

BEHAVIOR

a. Eating too much fat?

YES 1 (Q6)

NO 2 (Q5b)

b. Not eating enough fiber?

YES 1 (Q6)

NO 2 (Q5c)

c. Eating too much salt or sodium?

YES 1 (Q6)

NO 2 (Q5d)

d. Not eating enough calcium?

YES 1 (Q6)

NO 2 (Q5e)

e. Eating too much cholesterol?

YES 1 (Q6)

NO 2 (Q5f)

f. Eating too much sugar?

YES 1 (Q6)

NO 2 (Q5g)

g. Being overweight?

YES 1 (Q6)

NO 2 (Q5a)

7. Do you consider yourself to be:

Overweight, 1
 Underweight, or 2
 About right? 3

8. Based on your knowledge, which has more saturated fat: (READ EACH PAIR STARTING AT "X" AND THEN WAIT FOR AN ANSWER. DO NOT PROBE "DON'T KNOW" ANSWERS.)

PAIR	
START AT "X"	a. Liver, or 1 T-bone steak? 2 THE SAME 3 DON'T KNOW 8
	b. Butter, or 1 Margarine? 2 THE SAME 3 DON'T KNOW 8
	c. Egg white, or 1 Egg yolk? 2 THE SAME 3 DON'T KNOW 8
	d. Skim milk, or 1 Whole milk? 2 THE SAME 3 DON'T KNOW 8

9. Which has more fat: (READ EACH PAIR STARTING AT "X" AND THEN WAIT FOR AN ANSWER. DO NOT PROBE "DON'T KNOW" ANSWERS.)

PAIR	
START AT "X"	a. Regular hamburger, or 1 Ground round? 2 THE SAME 3 DON'T KNOW 8
	b. Loin pork chops, or 1 Pork spare ribs? 2 THE SAME 3 DON'T KNOW 8
	c. Hot dogs, or 1 Ham? 2 THE SAME 3 DON'T KNOW 8
	d. Peanuts, or 1 Popcorn? 2 THE SAME 3 DON'T KNOW 8
	e. Yogurt, or 1 Sour cream? 2 THE SAME 3 DON'T KNOW 8
	f. Porterhouse steak, or 1 Round steak? 2 THE SAME 3 DON'T KNOW 8

DO NOT PROBE "DON'T KNOW" ANSWERS FOR Q10-14.

10. Which kind of fat is more likely to be a liquid rather than a solid:

Saturated fats,	1
Polyunsaturated fats, or	2
Are they equally likely to be liquids?	3
DON'T KNOW	8

11. If a food has no cholesterol is it also:

Low in saturated fat,	1
High in saturated fat, or	2
Could it be either high or low in saturated fat?	3
DON'T KNOW	8

12. Is cholesterol found in:

Vegetables and vegetable oils,	1
Animal products like meat and dairy products, or	2
<u>All</u> foods containing fat or oil?	3
DON'T KNOW	8

13. If a product is labeled as containing only vegetable oil is it:

Low in saturated fat,	1
High in saturated fat, or	2
Could it be either high or low in saturated fat?	3
DON'T KNOW	8

14. If a food product is labeled "light," does that mean that compared to a similar product not labeled "light" it is lower in calories, lower in fat, or lower in calories and/or fat, or does it mean something else?

LOWER IN CALORIES	1
LOWER IN FAT	2
LOWER IN CALORIES AND/OR FAT	3
SOMETHING ELSE	4
DON'T KNOW	8

15. Now think about buying food. When you buy food, how important is (FACTOR) – very important, somewhat important, not too important, or not at all important?

What about (NEXT FACTOR)?

IF NEEDED, SAY: "How important is (FACTOR) – very important, somewhat important, not too important, or not at all important?"

START
AT "X"

	FACTOR	Very Important	Somewhat Important	Not Too Important	Not At All Important	DON'T KNOW
	a. How safe the food is to eat?	4	3	2	1	8
	b. Nutrition?	4	3	2	1	8
	c. Price?	4	3	2	1	8
	d. How well the food keeps?	4	3	2	1	8
	e. How easy the food is to prepare?	4	3	2	1	8
	f. Taste?	4	3	2	1	8

16. Now think about food labels. When you buy foods, do you use (SECTION) often, sometimes, rarely, or never?

What about (NEXT SECTION)?

IF NEEDED, SAY: "Do you use (SECTION) often, sometimes, rarely, or never?"

START
AT "X"

SECTION	Often (Always)	Some- times	Rarely	Never	NEVER SEEN	DON'T KNOW
a. The list of ingredients?	1	2	3	4	5	8
b. The short phrases like "low-fat" or "light" or "good source of fiber"?	1	2	3	4	5	8
c. The nutrition panel that tells the amount of calories, protein, fat, and such in a serving of the food?	1	2	3	4	5	8
d. The information about the size of a serving?	1	2	3	4	5	8
e. A statement that describes how nutrients or foods and health problems are related?	1	2	3	4	5	8

BOX 1

IS "NEVER" (4) OR "NEVER SEEN" (5) CIRCLED FOR ALL PARTS OF QUESTION 16?

YES 1 (Q24)

NO 2

17. When you look for nutrition information on the food label, would you say you often, sometimes, rarely, or never look for information about (STATEMENT)?

What about (NEXT STATEMENT)?

IF NEEDED, SAY: "Would you say you often, sometimes, rarely, or never look for information about that?"

START
AT "X"

STATEMENT	Often (Always)	Some- times	Rarely	Never
a. Calories?	1	2	3	4
b. Salt or sodium?	1	2	3	4
c. Total fat?	1	2	3	4
d. Saturated fat?	1	2	3	4
e. Cholesterol?	1	2	3	4
f. Vitamins or minerals?	1	2	3	4
g. Fiber?	1	2	3	4
h. Sugars?	1	2	3	4

18. Now think about the types of food products you buy using food labels. When you buy (FOOD PRODUCT), do you look for nutrition information on the food label often, sometimes, rarely, or never?

What about (NEXT FOOD PRODUCT)?

IF NEEDED, SAY: "And when you buy (FOOD PRODUCT), do you use the label often, sometimes, rarely, or never?"

START
AT "X"

FOOD PRODUCT	Often (Always)	Some- times	Rarely	Never	NEVER SEEN	DO NOT BUY
a. Dessert items like cookies or cake mixes?	1	2	3	4	5	6
b. Snack items like chips, popcorn, or pretzels?	1	2	3	4	5	6
c. Frozen dinners or main dishes?	1	2	3	4	5	6
d. Breakfast cereals?	1	2	3	4	5	6
e. Cheese?	1	2	3	4	5	6
f. Fresh fruits or vegetables?	1	2	3	4	5	6
g. Salad dressings?	1	2	3	4	5	6
h. Table spreads like butter or margarine?	1	2	3	4	5	6
i. Raw meat, poultry, or fish?	1	2	3	4	5	6
j. Processed meat products like hot dogs and bologna?	1	2	3	4	5	6
FOOD PRODUCT	Often (Always)	Some- times	Rarely	Never	NEVER SEEN	DO NOT BUY

19. Now think about the types of nutrition information on food labels. Do you think (SECTION) is very easy to understand, somewhat easy, or not too easy to understand?

What about (NEXT SECTION)?

IF NEEDED, SAY: "Would you say that is very easy to understand, somewhat easy, or not too easy to understand?"

START
AT "X"

SECTION	Very Easy	Somewhat Easy	Not Too Easy	NEVER SEEN	DON'T KNOW
a. The list of ingredients?	1	2	3	4	8
b. A short phrase like "low-fat" or "light" or "good source of fiber"?	1	2	3	4	8
c. The number of calories in a serving?	1	2	3	4	8
d. The number of calories <u>from fat</u> in a serving?	1	2	3	4	8
e. The number of grams or milligrams of nutrients like fat and sodium in a serving?	1	2	3	4	8
f. The percent of the daily value for each nutrient?	1	2	3	4	8
g. A description like "lean" or "extra lean" on meats?	1	2	3	4	8
SECTION	Very Easy	Somewhat Easy	Not Too Easy	NEVER SEEN	DON'T KNOW

20. If a food label says a food is (DESCRIPTION), would you say you are very confident, somewhat confident, or not too confident that the description is a reliable basis for choosing foods?

What about (NEXT DESCRIPTION)?

IF NEEDED, SAY: "How confident are you that the description is reliable? Would you say very confident, somewhat confident, or not too confident?"

START
AT "X"

DESCRIPTION	Very Confident	Somewhat Confident	Not Too Confident	DON'T KNOW
a. Low-fat?	1	2	3	8
b. Low-cholesterol?	1	2	3	8
c. A good source of fiber?	1	2	3	8
d. Light?	1	2	3	8
e. Healthy?	1	2	3	8
f. Extra lean?	1	2	3	8

21. As far as you know, does the government define and enforce the meaning of the phrase (PHRASE) on food labels? (DO NOT PROBE "DON'T KNOW" ANSWERS.)

What about the phrase (NEXT PHRASE)?

START AT "X"	PHRASE	YES	NO	DON'T KNOW
	a. Low-cholesterol?	1	2	8
	b. Light?	1	2	8
	c. Extra lean?	1	2	8

22. Now think about the section of the food label that tells the amount of calories, protein, and fat in a serving of the food. If it showed that one serving of the food contained (AMOUNT OF NUTRIENT), would you consider that to be a low amount or a high amount? (DO NOT PROBE "DON'T KNOW" ANSWERS.)

What about (NEXT AMOUNT OF NUTRIENT)?

IF NEEDED, SAY: "Would you consider that to be a low amount or a high amount for one serving of food?"

START AT "X"	AMOUNT OF NUTRIENT	Low	High	DON'T KNOW
	a. 100 milligrams of sodium?	1	2	8
	b. 20 grams of fat?	1	2	8
	c. 15 milligrams of cholesterol?	1	2	8
	d. 5 grams of fiber?	1	2	8
	e. 10 grams of saturated fat?	1	2	8

23. Now I am going to read some statements. Please tell me if you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with the statement: (READ STATEMENT)

What about (NEXT STATEMENT)?

IF NEEDED, SAY: "Do you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with the statement?"

START
AT "X"

STATEMENT	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree	NO OPINION
a. The nutrition information on food labels is useful to me.	4	3	2	1	0
b. I feel confident that I know how to use food labels to choose a healthy diet.	4	3	2	1	0
c. The nutrition information on food labels is hard to interpret.	4	3	2	1	0
d. Reading food labels takes more time than I can spare.	4	3	2	1	0
e. I read food labels because good health is important to me.	4	3	2	1	0
f. I would like to learn more about how to use food labels to choose a nutritious diet.	4	3	2	1	0
g. Reading food labels makes it easier to choose foods.	4	3	2	1	0
h. Sometimes I try new foods because of the information on the food label.	4	3	2	1	0
i. When I use food labels, I make better food choices.	4	3	2	1	0
j. Using food labels to choose foods is better than just relying on my own knowledge about what is in them.	4	3	2	1	0
STATEMENT	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree	NO OPINION

GO TO Q26

24. Now I am going to read some statements about food labels. Please tell me if you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with the statement: (READ STATEMENT)

What about (NEXT STATEMENT)?

IF NEEDED, SAY: "Do you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with the statement?"

START AT "X"	STATEMENT	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree	NO OPINION
	a. I feel confident that I know how to use food labels to choose a healthy diet.	4	3	2	1	0
	b. The nutrition information on food labels is hard to interpret.	4	3	2	1	0
	c. Reading food labels takes more time than I can spare.	4	3	2	1	0
	d. I would like to learn more about how to use food labels to choose a nutritious diet.	4	3	2	1	0
	e. Using food labels to choose foods would be better than just relying on my own knowledge about what is in them.	4	3	2	1	0
	STATEMENT	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree	NO OPINION

25. As far as you know, does the government define and enforce the meaning of the phrase (PHRASE) on food labels? (DO NOT PROBE "DON'T KNOW" ANSWERS.)

What about the phrase (NEXT PHRASE)?

START AT "X"	PHRASE	YES	NO	DON'T KNOW
	a. Low-cholesterol?	1	2	8
	b. Light?	1	2	8
	c. Extra lean?	1	2	8

26. Now think about the foods you eat. Would you say you always, sometimes, rarely, or never (HABIT)?

What about (NEXT HABIT)?

IF NEEDED, SAY: "Do you always, sometimes, rarely, or never (HABIT)?"

HABIT	Always (Almost Always)	Some- times	Rarely	Never	DOES NOT APPLY
a. Eat lower-fat luncheon meats <u>instead</u> of regular luncheon meats? (IF NEEDED, SAY: "Examples of lower-fat luncheon meats are deli ham and turkey. Examples of regular luncheon meats are bologna and salami.")	1	2	3	4	0
b. Use skim or 1% milk <u>instead</u> of 2% or whole milk?	1	2	3	4	0
c. Eat special, low-fat cheeses, when you eat cheese?	1	2	3	4	0
d. Eat ice milk, frozen yogurt, or sherbet <u>instead</u> of ice cream?	1	2	3	4	0
e. Use low-calorie <u>instead</u> of regular salad dressing?	1	2	3	4	0
f. Have fruit for dessert when you eat dessert?	1	2	3	4	0
g. Eat fish or poultry <u>instead</u> of meat? (IF NEEDED, SAY: "Meat refers to beef, pork, or lamb.")	1	2	3	4	0
HABIT	Always (Almost Always)	Some- times	Rarely	Never	DOES NOT APPLY

27. When you eat baked or boiled potatoes, how often do you add butter, margarine, or sour cream? Would you say always, sometimes, rarely, or never?

ALWAYS (ALMOST ALWAYS) 1
 SOMETIMES 2
 RARELY 3
 NEVER 4
 DO NOT EAT BAKED OR BOILED
 POTATOES 0

28. When you eat other cooked vegetables, do you always, sometimes, rarely, or never eat them with butter or margarine added?

ALWAYS (ALMOST ALWAYS) 1
SOMETIMES 2
RARELY 3
NEVER 4
DO NOT EAT COOKED VEGETABLES 0 (Q30)

29. When you eat other cooked vegetables, do you always, sometimes, rarely, or never eat them with cheese or another creamy sauce added?

ALWAYS (ALMOST ALWAYS) 1
SOMETIMES 2
RARELY 3
NEVER 4

30. When you eat chicken, do you always, sometimes, rarely, or never eat it fried?

ALWAYS (ALMOST ALWAYS) 1
SOMETIMES 2
RARELY 3
NEVER 4
DO NOT EAT CHICKEN 0 (Q32)

31. When you eat chicken, do you always, sometimes, rarely, or never remove the skin?

ALWAYS (ALMOST ALWAYS) 1
SOMETIMES 2
RARELY 3
NEVER 4

32. Would you describe the amount of butter or margarine you usually spread on breads and muffins as:

None, 1
Light, 2
Moderate, or 3
Generous? 4

33. About how many times in a week do you eat (FOOD) – less than once a week, 1-3, 4-6, or 7 or more times?

IF ASKED, SAY: "A 'time' is any single eating occasion."

FOOD	Less than once a week (Never)	1-3	4-6	7 or More
a. Bakery products like cakes, cookies, or donuts?	1	2	3	4
b. Chips, such as potato or corn chips?	1	2	3	4

34. And at your main meal, about how many times in a week do you eat beef, pork, or lamb. Would you say less than once a week, 1-2, 3-4, or 5-7 times?

LESS THAN ONCE A WEEK/NEVER 1
 1-2 TIMES 2
 3-4 TIMES 3
 5-7 TIMES 4
 DO NOT EAT MEAT 0 (Q37)

35. When you eat meat, do you usually eat:

IF ASKED, SAY: "The question is asking about meats, like beef, pork, or lamb."

Small, 1
 Medium, or 2
 Large portions? 3
 DO NOT EAT MEAT 0 (Q37)

36. When you eat meat and there is visible fat, do you trim the fat always, sometimes, rarely, or never?

ALWAYS (ALMOST ALWAYS) 1
 SOMETIMES 2
 RARELY 3
 NEVER 4
 NEVER EAT MEAT WITH VISIBLE FAT 0

37. How many eggs do you usually eat in a week – less than one, 1-2, 3-4, or 5 or more?

IF ASKED, SAY: "The question is asking about plain eggs, not egg substitutes or eggs in mixed dishes or baked goods."

LESS THAN ONE/NONE 1
 1-2 2
 3-4 3
 5 OR MORE 4

38. Before you eat fresh fruits and vegetables, do you or does someone else wash them always, sometimes, rarely, or never?

ALWAYS (ALMOST ALWAYS) 1
SOMETIMES 2
RARELY 3
NEVER 4
DON'T KNOW 8
DO NOT EAT FRESH FRUITS/
VEGETABLES 0 (Q42)

39. When you eat fresh fruits with peels that can be eaten, do you eat the peel always, sometimes, rarely, or never?

ALWAYS (ALMOST ALWAYS) 1
SOMETIMES 2
RARELY 3
NEVER 4
DON'T KNOW 8

40. When you eat fresh vegetables with peels that can be eaten, do you eat the peel always, sometimes, rarely, or never?

ALWAYS (ALMOST ALWAYS) 1
SOMETIMES 2
RARELY 3
NEVER 4
DON'T KNOW 8

41. Do you eat the outer leaves of leafy vegetables like lettuce and cabbage?

YES 1
NO 2
DON'T KNOW 8
DO NOT EAT LEAFY VEGETABLES 0

IF NEEDED, SAY: "What
do you do most of the
time?"

42. Are you the person most responsible for planning or preparing the meals in your household?

YES 1
NO 2
DON'T KNOW 8

THANK YOU FOR YOUR TIME AND COOPERATION

TIME ENDED _____ AM
PM

what we eat in **AMERICA** 1994-96

WHAT WE EAT IN AMERICA: 1994-1996
CONTINUING SURVEY OF FOOD INTAKES BY INDIVIDUALS

Conducted for:

United States Department of Agriculture

Conducted by:

Westat
1650 Research Blvd.
Rockville, MD 20850

**3.B Summary of Revisions to Day 1 and Day 2
Intake Questionnaires**

Attachment 3.B
Summary of Revisions to Day 1 and Day 2 Intake Questionnaires

Day 1 and Day 2 Intake Questionnaires -- Questions 1 to 6

- The box instructing the interviewer to ask the water questions was removed.
- Box 1 was added after Question 3, reminding the interviewer to transfer the Quick List foods to the grid and to check off the box next to the food item as it was transferred.
- Question 6 was added, to determine whether the next Quick List food item had been consumed at the same time as the previously reported food.
- The food REVIEW was moved from the end of the food intake questions to after Question 6. This change allowed the interviewer to review the intake after the description and quantity had been reported for each food rather than after the SP reported where the foods were obtained and eaten.
- The REVIEW was scripted for each eating occasion and period between eating occasions to ensure that the interviewer reviewed the day's intake in a standardized manner.
- Food source codes were added to Question 7. Additional codes included "bar, tavern, lounge," "vending machine," "meals on wheels," and "mail order." The food source codes "someone else" and "gift" were collapsed into one code.

Day 1 Intake Questionnaire -- Questions 7 to 43 and Interviewer Observation Form

- Questions 14 to 16, which asked about *usual intake*, were moved to Questions 11 to 13 so that they followed the food intake questions.
- Question 33, which asks about blood cholesterol testing, was moved ahead of the height and weight questions.
- The alcohol question (Q40) was divided into two separate questions, one about consumption and the other about type of alcohol consumed.
- An Interviewer's Observation Form was added to the end of the questionnaire.
- A question added to the Interviewer Observation Form asks the interviewer to determine whether other people present at the time of interview could have heard the SP's answer to the cigarette and alcohol questions.

Day 2 Intake Questionnaire – Questions 7 to 17 and Interviewer Observation Form

- Foods were added to the food list (Q17) and the list was reordered.

3.C Summary of Revisions to the Food Instruction Booklet

Attachment 3.C
Summary of Revisions to the Food Instruction Booklet (FIB)

January 1994

- Interviewer recording instructions were standardized.
- Icons were added for Additions, Sandwiches, Recipes, Salt, and Fat as a visual cue that the interviewer could find more specific recording guidelines in the instructions section of the FIB.
- All Q4 and Q5 probes were formatted as questions.
- Hanger names (i.e., KIND, TYPE, BRAND, FAT, SALT) and order within subcategories were standardized.
- All probes attached to hangers were standardized.
- Examples were added in column Q5 in categories where thickness sticks should be used to collect dimensions.
- Fast-food restaurants included in Survey Net were listed in the FIB fast-food subcategory.
- Pictures of poultry parts were added to the poultry subcategory to clarify chicken parts.
- Wedge and cylinder shapes were added to the pie, cake, and sausage subcategories as reminders of how to quantify foods.

July 1994

- **Table of Contents.** New sandwich categories were added to the SANDWICH, SALADS, SOUPS category.
- **Cookies, Brownies.** In Q5, after the hanger **IF STANDARD COMMERCIAL COOKIES**, the probe was changed to "How many and what size?" The sizes "bite-size" and "regular" were added in parentheses to indicate the two possible choices.
- **Cakes, Cupcakes, Snack Cakes.** The probe after the hanger **FORM** was reworded and the "if" probes were resequenced for clarity. In column Q5, the word *layers* was underlined as a reminder to record the number of layers.
- **Poultry.** An "if" probe about poultry wings was added under the hanger **IF PART**, and a picture of a wing was included.

- **Macaroni and Cheese.** The subhanger **Other Ingredients** was added under **IF HOME RECIPE** to capture any ingredients not listed. In column Q5, an example was added after the probe “How much pasta and sauce mixed together?”
- **Sandwich, Salads, Soups.** This major category was expanded to include four new sandwich categories.

Fast-Food Sandwiches, Fast-Food Breakfast Sandwiches. The first two hangers were rearranged to show more clearly whether the reported sandwich came from a fast-food restaurant.

Hamburger on Bun. The hanger **SPREAD** was moved up after the hanger **BREAD** and more details were added to the “if” probes under **OTHER INGREDIENTS**. The **BREAD** probes were modified so that they would be the same as those used in the other sandwich categories.

Hot Dogs. The hangers **MEAT** and **BREAD** were switched so that, when probing for a corn dog, the interviewer would not have to ask the bread probes. More details were included for **Bread amount** and **Cheese amount**.

Grilled Cheese Sandwich. More details were added in the **BREAD**, **CHEESE**, and **OTHER INGREDIENTS** hangers to clarify the probes and make them similar to those used in the other sandwich categories.

Peanut Butter Sandwich. Two “if” probes were added under **OTHER INGREDIENTS** to collect information about margarine/butter and mayonnaise. An **ADDITIONS** hanger was included to capture other foods added to the prepared sandwich at the table (e.g., banana slices or apple wedges). The **BREAD** probes were modified so that they would be the same as those used in the other sandwich categories.

Other Sandwiches. This category was divided into four new categories: Bacon, Sausage, BLT Sandwiches; Beef, Ham, Pork, Chicken, Turkey, Vegetarian, Other Sandwiches; Egg, Egg Salad Sandwiches; and Fish, Shellfish Sandwiches. The **BREAD**, **SPREAD**, and **OTHER INGREDIENTS** hangers were standardized throughout the sandwich categories to reduce variability.

- **Green Salads and Other Salads.** The probes after the hanger **SALAD DRESSING** were modified so that they would be the same as those used in the sandwich categories. In Q5 of the **Other Salads** category, the two hangers were deleted and replaced with the hanger **IF VOLUME**.

3.D Supervisor/Senior Interviewer Training Agenda

November 22, 1993

WHAT WE EAT IN AMERICA: 1994-1996
SUPERVISOR TRAINING AGENDA
December 8 - 16, 1993

DAY	TIME	SESSION TOPIC	TYPE OF SESSION	MANUAL REFERENCE	MATERIALS NEEDED
1	9:00 - 9:45	#1: Introduction to What We Eat in America	Plenary		
	9:45 - 10:00	#2: Introduction to Training	Plenary		Trainer lecture script Agenda for trainees
	10:00 - 10:30	#3: Receiving Assignments and Beginning the Interview	Plenary	Interviewer Procedures	Trainer lecture script Examples of case materials Examples of publicity materials Exercise on Introduction at the Door
	10:30 - 10:45	BREAK			
	10:45 - 11:15	#3: Receiving Assignments and Beginning the Interview (continued)	Plenary		
	11:15 - 12:00	#4: Overview of the Interviewing Process	Plenary	Interviewer Procedures	Trainer lecture script Flowchart of process
	12:00 - 1:00	LUNCH			
	1:00 - 2:45	#5: Introduction to the Household Folder and Administering the Screener	Plenary	Interviewer Procedures Home Study Guide	Trainer lecture script Interactive scripts Exercise on Sampling SPs Home Study Guide Key
	2:45 - 3:00	BREAK			

SUPERVISOR TRAINING AGENDA (continued)

DAY	TIME	SESSION TOPIC	TYPE OF SESSION	MANUAL REFERENCE	MATERIALS NEEDED
1 (continued)	3:00 - 3:30	#6 Quality Control of Listing	Plenary	Interviewer Procedures	Trainer lecture script Exercise on locating and defining DU's
	3:30 - 4:15	#7: Demonstration of the Individual Intake Questionnaire	Plenary	Interviewer Procedures	Demonstration script Measuring guides and other props used during demo
	4:15 - 5:30	#8: Introduction to the Day 1 Intake, FIB and Measuring Guides	Plenary	Interviewer Procedures Home Study Guide Question-by-Question Specs Instructions in FIB	Trainer lecture script Home Study Guide Key

SUPERVISOR TRAINING AGENDA (continued)

DAY	TIME	SESSION TOPIC	TYPE OF SESSION	MANUAL REFERENCE	MATERIALS NEEDED
2	9:00 - 10:30	#9: Day 1 Intake Scripts	Plenary	Interviewer Procedures Question-by-Question Specs	Trainer lecture script Interactive scripts
	10:30 - 10:45	BREAK			
	10:45 - 12:00	#9: Day 1 Intake Scripts (continued)	Plenary		
	12:00 - 1:00	LUNCH			
	1:00 - 2:45	#9: Day 1 Intake Scripts (continued)	Plenary		
	2:45 - 3:00	BREAK			
	3:00 - 5:30	#9: Day 1 Intake Scripts (continued)	Plenary		

SUPERVISOR TRAINING AGENDA (continued)

DAY	TIME	SESSION TOPIC	TYPE OF SESSION	MANUAL REFERENCE	MATERIALS NEEDED
3	9:00 - 10:30	#10: Day 1 Intake Script and Missing Meal Data Retrieval	Plenary	Interviewer Procedures Question-by-Question Specs	Trainer lecture script Interactive script
	10:30 - 10:45	BREAK			
	10:45 - 12:30	#11: Role Plays	Dyads		One scripted intake (second will be "real" intake)
	12:30 - 1:30	LUNCH			
	1:30 - 2:45	#15: Recording Contact Attempts	Plenary	Interviewer Procedures FMS Manual	Trainer lecture script Exercise on making simple entries
	2:45 - 3:00	BREAK			
	3:00 - 4:30	#16: Day 2 Intake Scripts	Plenary	Interviewer Procedures Question-by-Question Specs	Trainer lecture script Interactive script
	4:30 - 5:30	#17: Wrap Up Exercise for the Intake	Plenary	Interviewer Procedures Question-by-Question Specs	Exercise

SUPERVISOR TRAINING AGENDA (continued)

DAY	TIME	SESSION TOPIC	TYPE OF SESSION	MANUAL REFERENCE	MATERIALS NEEDED
4	9:00 - 10:30	#18: The Household Questionnaire	Plenary	Interviewer Procedures Question-by-Question Specs	Trainer lecture script Interactive script
	10:30 - 10:45	BREAK			
	10:45 - 12:15	#19: Editing the Individual Intake	Plenary	Question-by-Question Specs	Exercise on Editing
	12:15 - 1:15	LUNCH			
	1:15 - 2:45	#20: Administering the Screener - Part 2	Plenary	Interviewer Procedures Question-by-Question Specs	Trainer lecture script Interactive scripts Exercise on various Screener problems
	2:45 - 3:00	BREAK			
	3:00 - 4:15	#21: The Household Questionnaire - Part 2	Plenary	Interviewer Procedures Question-by-Question Specs	Trainer lecture script Interactive script
	4:15 - 5:30	#22: Administering the DHKS	Plenary	Interviewer Procedures Question-by-Question Specs	Trainer lecture script Interactive script

SUPERVISOR TRAINING AGENDA (continued)

DAY	TIME	SESSION TOPIC	TYPE OF SESSION	MANUAL REFERENCE	MATERIALS NEEDED
5	9:00 - 9:15	#26: Market Checks	Plenary	Interviewer Procedures	Trainer lecture script Exercise on completing a market check
	9:15 - 10:30	#23: Putting It All Together	Community		Interactive script (for all questionnaires)
	10:30 - 10:45	BREAK			
	10:45 - 12:00	#23: Putting It All Together (continued)	Community		
	12:00 - 1:00	LUNCH			
	1:00 - 3:00	#23: Putting It All Together (continued)	Community		
	3:00 - 3:15	BREAK			
	3:15 - 5:30	#24: Recording Contact Attempts, Contact Problems and Procedures, Avoiding Refusals	Plenary	Interviewer Procedures FMS Manual	Trainer lecture script Exercises on contact procedures and making entries

SUPERVISOR TRAINING AGENDA (continued)

DAY	TIME	SESSION TOPIC	TYPE OF SESSION	MANUAL REFERENCE	MATERIALS NEEDED
6	9:00 - 10:30	#24: Recording Contact Attempts, Contact Problems and Procedures, Avoiding Refusals (continued)	Plenary		
	10:30 - 10:45	BREAK			
	10:45 - 12:00	#24: Recording Contact Attempts, Contact Problems and Procedures, Avoiding Refusals (continued)	Plenary		
	12:00 - 1:00	LUNCH			
	1:00 - 2:00	#24: Recording Contact Attempts, Contact Problems and Procedures, Avoiding Refusals (continued)	Plenary		
	2:00 - 3:00	#25: Transmitting FMS Data to Your Supervisor and Role Plays	Plenary Dyads	FMS Manual	Trainer lecture script Role play scripts
	3:00 - 3:15	BREAK			
	3:15 - 5:30	#25: Transmitting FMS Data to Your Supervisor and Role Plays (continued)	Dyads		

Day 7 and 8 = Training supervisors on their "supervisory" activities.

3.E Interviewer Training Agenda

**WHAT WE EAT IN AMERICA: 1994-1996
INTERVIEWER TRAINING AGENDA**

PRE-TRAINING

General Interviewing Techniques (4 hours in morning) - Community Session - Any interviewer new to Westat will be required to go through this session. Although conducted in community, trainees will not be in the community to which they will be assigned.

Introduction to the LTEs and the Basic Keys used for the FMS (3 hours in afternoon or early evening) - Community Session - This presentation will start at staggered times throughout the day and early evening to accommodate various flight arrivals. Although conducted in community, trainees will not necessarily be in the community to which they will be assigned.

Registration - Trainees will be assigned to training communities. Home Studies will be collected and trainees will receive per diem.

#1: Introduction to What We Eat in America (7:15-8:00) - Plenary Session - Introduction and welcome from HNIS and Westat staff including basic explanation of study.

DAY 1

#2: Introduction to Training (8:30-8:45) - Community Session - Introduction to training staff and trainees in the community. Brief overview of the week's agenda.

#3: Receiving Assignments and Beginning the Interview (8:45-10:15) - Community Session - Overview of materials, listing process, and sample design. Also includes introduction at the door, answering questions, and using publicity materials.

BREAK (10:15-10:30)

#4: Overview of the Interviewing Process (10:15-11:00) - Community Session - Introduction to the different questionnaires which will be used. Discussion of the basic contacting rules and timings for conducting the various types of questionnaires.

#5: Introduction to the Household Folder and Administering the Screener (11:00-12:00) - Community Session - Using the Household Folder including description of sections, recording Screener results and recording SP identifying information. Conducting the Screener including identifying the respondent, rules for determining household members, and SP selection.

LUNCH (12:00-1:00)

- #5: Introduction to the Household Folder and Administering the Screener (1:00-1:45) - Community Session - Continuation of above presentation.**
- #6: Quality Control of Listing (1:45-2:45) - Community Session - Discussion of the missed structure and missed DU procedure including documentation.**

BREAK (2:45-3:00)

- #7: Demonstration of the Individual Intake Questionnaire (3:00-4:00) - Community Session - Overview of the process for conducting the intake.**
- #8: Introduction to the Day 1 Intake, FIB and Measuring Guides (4:00-5:30) - Community Session - Introduction to all necessary materials, introduction to the respondent and the flow of the intake including the Quick List.**

DAY 2

- #9: Day 1 Intake Scripts (8:30-10:15) - Community Session - A variety of scripts using the Day 1 Intake. These scripts will build in complexity and focus on bringing out various specifications (such as recording combinations, etc.).**

BREAK (10:15-10:30)

- #9: Day 1 Intake Scripts (10:30-12:00) - Community Session - Continuation of above session.**

LUNCH (12:00-1:00)

- #9: Day 1 Intake Scripts (1:00-2:45) - Community Session - Continuation of above session.**

BREAK (2:45-3:00)

- #9: Day 1 Intake Scripts (3:00-5:30) - Community Session - Continuation of above session.**

DAY 3

- #10: Day 1 Intake Script and Missing Meal Data Retrieval (8:30-10:00) - Community Session - Script focusing on retrieval including a 30 minute session for missing meal data retrieval.**

BREAK (10:00-10:15)

- #11: Role Plays (10:15-12:00) - Dyads - Trainees will complete two role plays of the Day 1 Intake. One of these will be scripted and the other will be a "real" interview of their dyad partner. Trainees will be required to edit these questionnaires and turn them in at the end of the day.**

LUNCH (12:00-1:00)

#12: Overview of Paid Respondent Practice (1:00-1:15) - Community Session - Description of process for the afternoon including grouping trainees.

#13: Paid Respondent Practice (1:15-3:15) - Groups of 4 trainees Working in groups of 4, trainees will interview paid respondents using the Day 1 Intake Questionnaire. This session will include a variety of respondents (i.e., different ages, etc.) to expose the trainees to a wide range of problems. Trainees will be required to edit these questionnaires and turn them in at the end of the day.

BREAK (3:15-3:30)

#13: Paid Respondent Practice (3:30-5:30) - Groups of 4 trainees - Continuation of above session.

DAY 4

#14: Answers to Questions from Previous Day (including comments from HNIS' observation) (8:30-8:45) - Community Session

#15: Recording Contact Attempts (8:45-10:15) - Community Session - Overview of the process of entering results into the FMS including discussion of the result codes and practice making simple entries. As an exercise, trainees will be required to enter the status of each role play and paid respondent interview from the previous day.

BREAK (10:15-10:30)

#16: Day 2 Intake Scripts (10:30-12:00) - Community Session - Script using the Day 2 Intake.

LUNCH (12:00-1:00)

#17: Wrap Up Exercise for the Intake (1:00-2:45) - Community Session - Exercise to pull together all of the concepts and specifications relating to the Intake and related materials. This session includes time for the trainees to complete the exercise and time to review it.

BREAK (2:45-3:00)

#18: The Household Questionnaire (3:00-4:30) - Community Session - Conducting the Household Questionnaire including identifying the respondent.

#19: Editing the Individual Intake (4:30-5:30) - Community Session - Exercise to practice recognizing problems with the intake.

DAY 5

- #20: Administering the Screener - Part 2 (8:30-10:15) - Community Session - Discussion of the more complex procedures and specifications for the Screener including the use of neighbor information. Introduction to different types (result codes) of completed Screeners.**

BREAK (10:15-10:30)

- #21: The Household Questionnaire - Part 2 (10:30-12:00) - Community Session - Scheduling considerations for conducting the Household Questionnaire, answering respondent questions and specifications for the questionnaire.**

LUNCH (12:00-1:00)

- #22: Administering the DHKS (1:00-2:15) - Community Session - Selecting the respondent and scheduling the interview, answering respondent questions, telephone procedures, and specifications for the questionnaire.**

- #23: Putting It All Together (2:15-2:45) - Neighborhood Session - Practice doing interview in simulated real life setting. Working in small groups, trainees will go in front of the room to play role of interviewer (using all materials such as measuring guides, etc.).**

BREAK (2:45-3:00)

- #23: Putting It All Together (3:00-5:30) - Neighborhood Session - Continuation of above presentation.**

DAY 6

- #23: Putting It All Together (8:30-9:30) - Neighborhood Session - Continuation of above presentation.**

- #24: Recording Contact Attempts, Contact Problems and Procedures, Avoiding Refusals (9:30-10:15) - Community Session - A variety of exercises focusing on contact problems and procedures using the Household Folder and FMS. These exercises will build in complexity and focus on bringing out various procedures (both documentation of situation and handling the respondent). Will also include backup procedures and using Email.**

BREAK (10:15-10:30)

- #24: Recording Contact Attempts, Contact Problems and Procedures, Avoiding Refusals (10:30-12:00) - Community Session - Continuation of above presentation.**

LUNCH (12:00-1:00)

- #24: Recording Contact Attempts, Contact Problems and Procedures, Avoiding Refusals (1:00-2:45) - Community Session - Continuation of above presentation.**

BREAK (2:45-3:00)

- #25: Transmitting FMS Data to Your Supervisor and Role Plays (3:00-5:30) - Dyads** - During Role Plays, trainees will be pulled to learn procedures for transmitting data including a practice where each trainee will transmit. When not in this session, trainees will complete a scripted Role Play which will include each questionnaire type. Trainees will be required to edit these questionnaires and turn them in at the end of the day.

DAY 7

- #24: Recording Contact Attempts, Contact Problems and Procedures, Avoiding Refusals (8:30-10:15) - Community Session** - Continuation of presentation from previous day.

BREAK (10:15-10:30)

- #26: Market Checks (10:30-10:45) - Community Session** - Discussion of procedures for conducting a market check and completing the form.

- #27: Data Uses (10:45-11:15) - Plenary** - HNIS presentation to further explain use of the data (using factbook as reference).

- #28: Final Review of the Questionnaire - Review of Paid Respondent and Role Play Experiences (11:15-12:30) - Plenary** - Answer questions that still need clarification and review experience from paid respondent and role play interviews day. Answer any outstanding questions from the floor. [Trainees will receive individual feedback from the Review 2 forms. The information from this session along with the early editing will be the basis for the first newsletter.]

LUNCH (12:30-1:30)

- #29: Quality Control and Administrative Procedures (1:30-3:00) - Community Session** - Discussion of all procedures including receiving feedback from the supervisors on data quality (using previous presentation material as an example).

BREAK (3:00-3:15)

- #30: Explanation of Practice Interviews, Meeting with the Supervisor and Packing Up the LTEs (3:15-4:30) - Community Session** - Description of procedures for completing the practice interviews and of the process for evaluating them.

3.F Periodic Quizzes Administered to the Interviewers

Attachment 3.F
Periodic Quizzes Administered to the Interviewers

During the CSFII/DHKS 1994, the supervisors administered five quizzes to their interviewers over the telephone. The text of the quizzes is provided in the following pages. Except for the August 1 quiz, all quizzes were sent by the field director to the supervisors via Email.

From: Field Director 5/11/94
To: Supervisors and Interviewers
Subject: Intake Review Exercise Memo 221

----- Message Contents -----

Throughout the second quarter, we will conduct a series of refresher training exercises. The first one addresses the proper way to administer the review of the Intake. We've listened to the Intake tape recordings and noticed that the review still gives some interviewers a bit of trouble.

Please copy the following information onto a piece of paper. During your next report call with your supervisor, she will ask you to refer to the review question on your laminated card or in a blank Intake questionnaire. Using the times, occasions, and food items below, your supervisor will ask you to review the day's intake.

TIME	OCCASION	FOOD ITEM
6:00 am	01	coffee corn flakes toast
9:30 am	06	donut coffee
6:45 pm	04	wine steak potato apple pie
3:00 pm	06	coffee cream sugar
12:30 pm	03	hot dog baked beans milk olives
9:00 pm	06	apple pie coffee

From: Field Director 5/11/94 4:42 PM
To: Supervisors
Subject: Intake Review Exercise Memo 221 Part B

Message Contents

During this week's report calls, please conduct the exercise described in Memo 221 with all of your interviewers. If an interviewer did not receive the Email for some reason, please read the time, occasion, and food list to him/her. If you feel that this will not give the interviewer enough time to prepare for the exercise, schedule an appointment to call the interviewer back.

The review continues to give interviewers problems, as you have certainly noticed when listening to the tapes.

Interviewers who demonstrate a lack of proficiency in administering the review should be considered candidates for additional retraining by you or your senior interviewer.

During our call on Monday, we'll discuss the exercise and how well it served our purpose.

From: Field Director 6/15/94 11:30 AM
To: Supervisors
Subject: Memo #249 DHKS Exercise

----- Message Contents -----

I would like you to conduct the following mini-mock exercise with your interviewers during report calls this week.

EXERCISE ON QUESTIONS 5 & 6 IN THE DHKS: What have you heard about health problems caused by ?

Directions to interviewer: Please turn to page 5 in a blank DHKS questionnaire and ask me this series of questions. Record your answers on a piece of paper. Do not record in the questionnaire. You should start with item "c."

ITEM	Q5	Q6
c.	No	
d.	Yes	Dental problems (07) WAIT FOR PROBE Rickets (03) WAIT FOR PROBE no
e.	Yes	makes you fat (15) WAIT FOR PROBE no
f.	Yes	rots your teeth (07) WAIT FOR PROBE gives you the shakes (00) SHOULD RECORD VERBATIM WAIT FOR PROBE no
g.	No	
a.	Yes	some health problems, I can't recall now (17)
b.	Yes	trouble using the toilet (00) SHOULD RECORD VERBATIM WAIT FOR PROBE no

After the role play, have the interviewer read you his/her entries. "Gives you the shakes" and "trouble using the toilet" are too vague to be coded and must be recorded verbatim.

Evaluate the interviewer on the following items:

1. Following the random start. Did he/she return to the top and ask a. and b.?
2. Did he/she probe after each condition until you answered "no"?
3. Did he/she select the correct codes for health conditions with codes?

Refer the interviewer to the QxQs, page 15-15 in the Interviewer Manual if necessary.

We will chat on Monday during our report call about this exercise.

WESTAT

An Employee-Owned Research Corporation

MEMORANDUM

TO: What We Eat in America Supervisors

FROM: Susie McNutt

SUBJECT: FIB Sandwich Pop Quiz

August 1, 1994
Memo #271

Attached is a list of questions to ask each interviewer during Thursday's reports.

The three main questions are within the shaded boxes. Read the questions exactly as written. The answers are listed in caps and parentheses after each question.

In the first question you will be asking the interviewers to identify the appropriate sandwich category from which to probe for specific sandwiches that are listed below the box.

In the second question you will be asking a series of subquestions about a roast beef sandwich.

- The second and third subquestions refer to an important change in the sandwich category. Instead of referring the interviewer back to the MEAT, POULTRY, FISH category for probes about roast beef sliced from a roast, the probes have been incorporated into this category.
- The last subquestion refers to cheese and will reinforce to the interviewers that an additional probe has been added for cheese amount when cheese is not presliced.

The third question involves role playing. The correct probes for the fried clam sandwich are listed below the question.

INTERVIEWER'S SANDWICH EXERCISE

WHICH SANDWICH CATEGORY WOULD YOU PROBE FROM IF A RESPONDENT REPORTED EATING A:

- Sausage biscuit?
(BACON, SAUSAGE, BLT SANDWICHES, PAGES 56A-56B)
- Hamburger from A & W?
(HAMBURGER ON BUN, PAGES 61A-61B)
- Meatloaf sandwich?
(BEEF, HAM, PORK, CHICKEN, TURKEY, VEGETARIAN, OTHER SANDWICHES, PAGES 57A-57B)
- Egg McMuffin?
(FAST FOOD SANDWICHES, PAGE 55)
- Tuna fish sandwich?
(FISH, SHELLFISH SANDWICHES, PAGES 59A-59B)
- Fried egg sandwich?
(EGG, EGG SALAD SANDWICH, PAGES 58A-58B)
- Veggie Sandwich?
(BEEF, HAM, PORK, CHICKEN, TURKEY, VEGETARIAN, OTHER SANDWICHES, PAGES 57A-57B)

IF A RESPONDENT REPORTED EATING A ROAST BEEF SANDWICH AND DESCRIBED THE MEAT AS BEING SLICED FROM A RIB ROAST,

- which category would you probe from?
(BEEF, HAM, PORK, ETC....., PAGES 57A-57B)
- which meat probes would you use?
(GO TO THE HANGER "IF OTHER FORM" AND ASK THE PROBES AFTER THE SUBHANGER "IF BEEF/HAM/PORK")
- what information would you need to record the amount of meat on the sandwich?
(SHAPE, DIMENSIONS OR WO (RAW OR COOKED))
- if he also reported putting a "chunk" of cheese on the sandwich, what information would you need to record the quantity of cheese?
(FIRST VERIFY NOT PRE SLICED; THEN ASK SHAPE AND DIMENSIONS (LENGTH, WIDTH, THICKNESS STICKS))

**NOW GET OUT A PIECE OF PAPER. I AM THE RESPONDENT, AND I ATE
A FRIED CLAM SANDWICH FOR LUNCH AT 2:00PM YESTERDAY. ASK
ME THE PROBES AND RECORD THE RESPONSES AS YOU WOULD ON A
QUESTIONNAIRE.**

BREAD: bun

Grain: sour dough

Type: commercial, regular

Bread amount: one medium bun

SPREAD: yes, mayonnaise

If mayonnaise –

type: DK real, DK regular, DK brand

Spread amount: 2 tablespoons

FORM: something else

Type: fresh

Preparation: fried

Coating: battered

Salt: DK

Fat: yes, DK kind

Brand: restaurant, The ClamDigger's Paradise

Other amount: 1/2 cup clams

OTHER INGREDIENTS: Yes, coleslaw

If something else: about 1/4 cup

ADDITIONS: sliced dill pickles

Q5: ate all

Pickles: (page 36) dill, regular, 2 round medium slices

From: Field Director 9/9/94 9:53 AM
To: Supervisors
Subject: HHQ Income Exercise Memo #294

----- Message Contents -----

HOUSEHOLD QUESTIONNAIRE INCOME SECTION EXERCISE

The September exercise in our What We Eat in America Continuing Education program consists of a mini-mock on the income section of the Household Questionnaire. This section can be troublesome for both interviewers and respondents since the unit of time changes from yearly income to monthly income halfway through the section.

Please administer the following exercise to your interviewers during report calls the week of September 11. Before the call, send them an Email instructing them to have note paper, a pencil, the hand cards, and a blank HHQ available.

Score the exercise using Excellent, Good, Fair, and Poor. Provide me with the scores after the calls. Remember, senior interviewers should also do the exercise. You will act as the respondent. DO NOT INTERRUPT THE INTERVIEWER DURING THE MOCK. IF THE INTERVIEWER TAKES THE WRONG SKIP, STAY WITH THE FLOW. IF THE INTERVIEWER DOESN'T PROBE FOR A CORRECT RESPONSE, SAY NOTHING ABOUT IT UNTIL THE EXERCISE CRITIQUE.

INSTRUCTIONS TO THE INTERVIEWER - Today's exercise covers the HHQ's income section. Please write down the Screener information.

John	age	40	reference person
Mary	age	39	wife and HHQ respondent
Tim	age	25	son
Joe	age	24	roomer

The Check Screener Box on the questionnaire cover is coded NO.

Please turn to page 13 and start at Box 5. Read from the HHQ but record your answers on note paper. You do not have to read the hand cards to me, just tell me the number of the card that you are handing to me.

BEGIN

Card selected should be S3-04

ANSWER IS More

48. Yes. My son has a paper route.

49. He made \$3,000 after paying for gasoline.

50. Yes.
51. \$500 not counting Joe. I don't know much about his finances.
52. \$45,000. Joe's a mailman, should I estimate his salary? ANSWER IS YES. That's about \$25,000 more. Should I add that to mine? ANSWER IS YES \$70,000.
53. SKIP.
54. No.
55. HAND CARD H-7 Letter C - Again that's without Joe.
- 56a. HAND CARD H-8 Yes.
- 57a. I told you \$70,000. THIS ANSWER IS INCORRECT. INTERVIEWER SHOULD PROBE FOR MONTHLY INCOME. \$70,000 IS A YEARLY FIGURE. IF INTERVIEWER PROBES CORRECTLY, ANSWER SHOULD BE About \$6,000, I guess.
- 57b. through e. ARE ALL ANSWERED No.
- 56f. Yes, my husband gets a check from his father's estate. It's \$1,200 a year. ANSWER SHOULD BE MONTHLY, NEED PROBE HERE \$100.
- Box 6 No.
58. SKIP.
59. No.
60. No.

INSTRUCTION TO SUPERVISOR: At the conclusion of the exercise, ask the interviewer to read his/her answers to you. Base your evaluation on the following points.

51. Marginal note should read "Excluding Joe" or something similar.
52. Should be \$70,000. Marginal note may or may not have figures added together.
55. Marginal note should read "Excluding Joe" etc.
- 57a. Confirm that monthly figure is entered, not yearly. \$6,000
- 57f. Confirm that monthly figure is entered, not yearly. \$100

From: Field Director 10/4/94 10:23 AM
To: Supervisors and Interviewers
Subject: Memo #309 Sampling Exercise for This Week's Report Call

----- Message Contents -----

Your Quarter Four assignments are packed up and ready for shipment. You can mail your advance letters no sooner than Friday, October 7, and begin screening no sooner than Thursday, October 13.

This month's report call exercise focuses on screening and SP selection. Please take a blank Screener from your bulk supplies and prepare it for the exercise by writing in the sampling information for a Message 15.

Box 1

Males	12-49 _____	Yes	()	No	()
Females	12-19 _____	Yes	()	No	()
	40-49 _____	Yes	()	No	()

Box 3

Males	1-11 _____	Yes	()	No	()
	50+ _____	Yes	()	No	()
Females	1-11 _____	Yes	()	No	()
	50+ _____	Yes	()	No	()

Have your prepared Screener and your hand cards available for the exercise.

From: Field Director 10/4/94 10:50 AM
To: Supervisors
Subject: Memo #309 Part Two Answer Key

----- Message Contents -----

Here is the enumeration for the screening/SP selection exercise for this week's report calls.

Number of household members 6

Date of Screening Oct 6 Starting and ending times actual

- a. Dan, black, none of above, Feb 3 1910, age 84, male
- b. Louise, wife, black, none of above, Dec 13 1912, 81, female
- c. Joe, son-in-law, white Mexican, Sep 18 1950, 44, male
- d. Jane, daughter, black, none of above, Nov 9 1954, 39, female
- e. Bill, grandson, black, none of above, Apr 8 1987, 7, male
- f. Betty, granddaughter, black, none of above, May 2 1994, 5 months, female

Louise is Screener respondent.

At this point in the exercise, allow the interviewer to put the phone down while he/she works through the sampling page, Box 1.

Box 1 should have a YES next to Male 12-49.

Question 14 should be asked with card 6. Ask the interviewer to tell you the amount on the card - \$25,690.

Question 14 is answered LESS.

At this point in the exercise, allow the interviewer to put the phone down while he/she works through the sampling page, Box 3, and the rest of the page.

Box 3 should have a YES next to Male 1-11, Male 50+, Female 50+.

Since there are SPs, the baby should be taken.

The SPs are:

Dan SP01
Louise SP02
Joe SP03
Bill SP04
Betty SP05

Give the interviewer a phone number and tell him/her you are not moving and that no missed DU is required.

At the conclusion of the exercise, have the interviewer tell you what he/she recorded on the cover, enumeration grid, and sampling page.

Please grade the exercise on the following points:

1. Were all questions asked as written?
2. Did the interviewer calculate ages correctly?
3. Did the interviewer record the Screener respondent, times, and disposition code on the cover?
4. Did the interviewer select the correct income card?
5. Did the interviewer select the correct SPs?

Grade Excellent - perfect

Very Good - very minor error that would not change sampling

Good - error that would not change sampling but would lose data

Fair - fumbled around, selected all SPs

Poor - missed at least one SP

Report grades and comments to me on Email after all persons in your region have completed the exercise.

**3.G Final Response Rates for CSFII/DHKS 1994
by PSU and Questionnaire Type**

Final Response Rates for CSFII/DHKS 1994 by PSU and Questionnaire Type

PSU	PSU LOCATION	SCREENER %	HHQ %	DAY 1 INTAKE %	DAY 2 INTAKE %	DHKS %
101	BOSTON, MA	98.5	91.3	88.9	86.4	97.1
103	SPRINGFIELD, MA	97.7	92.7	86.7	82.9	91.2
104	PROVIDENCE, RI	97.9	89.8	77.0	68.0	90.0
105	NEWPORT, RI	97.8	95.1	90.5	87.3	97.9
106	NASSAU/SUFFOLK, NY	98.6	86.7	76.9	66.7	84.2
107	KINGS/RICHMOND, NY	98.8	86.7	87.7	86.2	94.4
108	NEW YORK/QUEENS, NY	91.8	79.3	59.7	52.2	88.2
109	BRONX/PUTNAM, NY	96.0	64.0	60.4	54.7	84.6
112	BERGEN/PASSAIC, NJ	97.1	87.0	78.8	78.8	100
115	ATLANTIC CITY, NJ	100	87.5	84.6	77.9	90.0
116	PHILADELPHIA, PA/CAMDEN, NJ	98.8	83.6	70.0	60.9	80.0
118	HARRISBURG, PA	99.3	93.3	81.2	78.1	94.4
119	PITTSBURGH, PA	98.1	93.7	82.1	77.9	92.5
202	YOUNGSTOWN/WARREN, OH	100	90.9	87.8	87.8	97.6
204	CLEVELAND, OH	95.6	80.6	73.4	72.1	100
205	CINCINNATI, OH/DEARBORN, IN (COVINGTON, KY)	100	87.2	79.8	74.7	92.3
207	DETROIT, MI	99.4	82.4	83.1	77.7	89.1
210	GARY/HAMMOND, IN	97.5	95.2	88.9	87.3	97.5
211	CHICAGO, IL (CITY)	93.8	90.0	77.1	74.3	100
212	COOK/DU PAGE/MCHENRY, IL (CHICAGO)	99.1	75.7	74.7	74.7	100
214	KNOX/MERCER, IL	100	87.9	80.0	78.1	100
215	PEORIA, IL	100	85.9	74.6	73.8	97.6
216	ST LOUIS, MO/E. ST. LOUIS, IL	100	77.8	75.5	70.2	89.5
217	PIKE/RALLS, MO	100	92.1	93.2	91.7	97.8

Final Response Rates for CSFII/DHKS 1994 by PSU and Questionnaire Type

PSU	PSU LOCATION	SCREENER %	HHQ %	DAY 1 INTAKE %	DAY 2 INTAKE %	DHKS %
218	HOWARD/SALINE, MO	99.3	91.2	92.7	89.9	93.6
220	MINNEAPOLIS/ST PAUL, MN/WI	98.8	93.3	87.9	81.0	100
221	IOWA CITY, IA	100	85.0	75.8	74.2	97.0
224	CHEYENNE/ROOKS, KS	100	87.5	85.0	80.8	95.5
301	WASHINGTON, DC/MD/VA	99.2	84.4	76.0	70.5	82.8
303	BALTIMORE, MD	97.5	93.3	80.7	70.2	66.7
305	CHARLOTTESVILLE, VA	98.2	88.0	88.4	88.4	93.9
306	NORFOLK/VIRGINIA BEACH, VA	99.4	82.5	78.0	72.4	72.2
307	JOHNSON CITY, TN/BRISTOL, VA	100	87.5	85.5	84.2	91.2
310	GREENSBORO/WINSTON-SALEM, NC	100	88.1	87.5	86.7	94.1
312	FAYETTEVILLE, NC	99.4	70.6	70.9	62.7	90.9
313	NASHVILLE, TN	98.5	82.4	78.6	74.8	91.7
314	CHATTANOOGA, TN/DADE, GA	99.4	79.3	81.7	76.7	94.4
315	ATLANTA, GA	100	86.4	82.8	80.6	89.7
316	GREENE/LINCOLN, GA	100	85.9	79.7	74.8	95.1
318	TALLAHASSEE, FL	100	77.1	78.3	70.8	93.9
321	MIAMI/FORT LAUDERDALE, FL	99.2	73.5	64.6	61.5	82.8
325	FRANKLIN/MADISON, AR	98.1	90.3	85.3	82.9	89.7
326	POPE, AR	98.8	95.7	94.3	94.3	100
329	DALLAS, TX	100	85.7	80.9	72.1	82.6
330	ANDERSON, TX	99.2	90.4	85.9	82.8	97.0
331	AUSTIN, TX	98.0	83.3	80.4	75.0	91.5
333	HOUSTON, TX	97.1	79.5	77.8	76.5	95.0
334	BIG SPRING, TX	99.3	78.8	73.8	72.3	97.5
401	SEATTLE, WA	95.2	90.2	80.2	76.7	86.5
402	PORTLAND, OR	98.8	89.1	76.9	73.1	92.1

Final Response Rates for CSFII/DHKS 1994 by PSU and Questionnaire Type

PSU	PSU LOCATION	SCREENER %	HHQ %	DAY 1 INTAKE %	DAY 2 INTAKE %	DHKS %
403	MISSOULA, MT	100	93.9	93.7	92.3	100
404	BOISE CITY, ID	99.4	77.9	75.4	71.8	88.2
407	SAN FRANCISCO/OAKLAND, CA	98.4	86.7	87.8	80.6	87.1
408	SAN JOSE, CA	97.2	85.2	81.8	75.9	93.1
409	MERCED, CA	95.2	89.6	89.4	83.2	88.5
411	RIVERSIDE/SAN BERNARDINO, CA	98.4	90.0	69.1	57.4	70.0
412	LOS ANGELES CITY, CA	90.6	90.2	88.8	79.6	82.1
413	LOS ANGELES/LONG BEACH, CA	98.0	88.2	87.7	85.8	91.1
414	ANAHEIM/SANTA ANA, CA	96.1	68.7	56.0	53.3	66.7
415	SAN DIEGO, CA	96.1	77.3	87.0	85.2	91.7
418	PHOENIX, AZ	95.1	84.4	84.6	76.9	82.4
420	CIBOLA/VALENCIA, NM	98.1	91.4	87.1	78.8	84.0
TOTALS		98.4	86.2	81.4	77.4	91.8

3.H Evaluation Form for Taped Interviews

WHAT WE EAT IN AMERICA: 1994-1996
CONTINUING SURVEY OF FOOD INTAKES BY INDIVIDUALS

TAPE RECORDED INTERVIEW EVALUATION FORM

Affix mini-label or record Household ID:

Interviewer Name: _____ Interviewer ID: _____

Supervisor: _____

Evaluator: _____

Date: ____/____/____

Type of Questionnaires Observed:

- ☐ Household Questionnaire
- ☐ Day 1 Intake → Number Evaluated: _____
- ☐ Day 2 Intake → Number Evaluated: _____
- ☐ Diet and Health Knowledge Survey Questionnaire

A. BEGINNING THE INTERVIEW

A1. Characterize the interviewer's interaction with the respondent at the beginning of the interview.

Unprofessional	1	2	3	4	5	Professional
Unprepared	1	2	3	4	5	Prepared
Unorganized	1	2	3	4	5	Organized
Unfriendly	1	2	3	4	5	Friendly

A2. Did the interviewer follow the correct procedures for securing the respondent's permission to tape the interview?

YES 1
NO 2

IF NO, EXPLAIN:

B. HOUSEHOLD QUESTIONNAIRE

☐ IF NO HOUSEHOLD QUESTIONNAIRE EVALUATED, CHECK HERE AND GO TO SECTION C.

B1. Did the interviewer make a smooth transition to the Household Questionnaire?

YES 1
NO 2

IF NO, EXPLAIN: _____

B2. Did the interviewer select the respondent by asking to speak to the person with the most knowledge of food preparation and purchasing for the household?

YES 1
NO 2
R ALREADY KNOWN 3

IF NO, EXPLAIN: _____

B3. There are a number of places throughout the Household Questionnaire where the interviewer needs to transfer information from the Screener (e.g., occupation questions, school lunch questions, child care questions, etc.).

Did the interviewer refer to the Screener and correctly transfer the information?

YES 1
NO 2
CAN'T TELL 8

IF NO, EXPLAIN: _____

B4. Did the interviewer use the hand cards presenting them to the respondent, and taking the cards back after the question was answered?

YES 1
NO 2
CAN'T TELL 8

IF NO, EXPLAIN: _____

B5. Did the interviewer select the correct income card at Q47?

YES 1
NO 2
Q47 NOT ASKED 3
CAN'T TELL 8

IF NO, EXPLAIN: _____

B6. Did the interviewer follow the correct income questions skip patterns?

YES 1
NO 2

IF NO, EXPLAIN: _____

B7. Did the interviewer read the income questions in a calm, nonthreatening way?

YES 1
NO 2

B8. If the respondent refused to answer any or all of the income questions, did the interviewer accept the refusal in a pleasant professional manner?

YES 1
NO 2
NO REFUSALS 3

B9. Did the interviewer appropriately answer any questions the respondent had?

YES 1
NO 2

IF NO, EXPLAIN: _____

B10. ADDITIONAL COMMENTS ON THE HOUSEHOLD QUESTIONNAIRE. _____

B11. OVERALL EVALUATION OF THE HOUSEHOLD QUESTIONNAIRE INTERVIEW.

Unacceptable 1 2 3 4 5 Excellent

C. DAY 1 OR DAY 2 INTAKE

☐ IF NO INTAKE QUESTIONNAIRE EVALUATED, CHECK HERE AND GO TO SECTION D.

C1. Did the interviewer make a smooth transition to the Intake?

YES 1
NO 2

IF NO, EXPLAIN: _____

C2. Did the interviewer select an appropriate proxy respondent?

YES 1
NO 2
PROXY NOT NEEDED 3

IF NO, EXPLAIN: _____

C3. Did the interviewer use the Intake timeline to demonstrate what day of the week and hours of the day constituted the Intake day?

YES 1
NO 2
NOT NECESSARY 3

IF NO, EXPLAIN: _____

C4. Did the interviewer allow the respondent to recall food items for the Quick List without interruption?

YES 1
NO 2

IF NO, EXPLAIN: _____

C5. Did the interviewer ask the Intake questions in the proper sequence?

YES 1
NO 2

IF NO, EXPLAIN: _____

C6. Throughout the Intake Questionnaire, the interviewer has to use a variety of materials. Considering the hand cards, FIB and measuring aids, did the interviewer properly use the materials in a organized, effective manner?

YES 1
NO 2
CAN'T TELL 8

IF NO, EXPLAIN: _____

C7. Did the interviewer always refer to the FIB for probes?

YES 1
NO 2

IF NO, EXPLAIN: _____

C8. Please rate the interviewer's skill in using the FIB.

EXCELLENT 1
GOOD 2
FAIR 3
POOR 4

C9. Did the interviewer always probe thoroughly?

YES 1
NO 2

IF NO, EXPLAIN: _____

C10. Did the interviewer appropriately answer any questions the respondent had?

YES 1
NO 2

IF NO, EXPLAIN:

C11. ADDITIONAL COMMENTS ON THE INTAKE QUESTIONNAIRE.

C12. OVERALL EVALUATION OF THE INTAKE QUESTIONNAIRE INTERVIEW.

Unacceptable 1 2 3 4 5 Excellent

D. DIET AND HEALTH KNOWLEDGE SURVEY QUESTIONNAIRE

☐ IF NO DHKS QUESTIONNAIRE EVALUATED, CHECK HERE AND GO TO SECTION E.

D1. Did the interviewer conduct the DHKS in person or by telephone?

IN PERSON 1
BY TELEPHONE 2 (D4)

D2. Was it appropriate for the interview to be conducted in person?

YES 1
NO 2 } (D5)

IF NO, EXPLAIN: _____

D3. Did the interviewer have an acceptable telephone technique?

YES 1
NO 2

IF NO, EXPLAIN: _____

D4. Did the interviewer appropriately answer any questions the respondent had?

YES 1
NO 2

IF NO, EXPLAIN: _____

D5. Did the interviewer ask the random start questions in a random pattern?

YES 1
NO 2

IF NO, EXPLAIN: _____

D6. ADDITIONAL COMMENTS ON THE DHKS QUESTIONNAIRE. _____

D7. OVERALL EVALUATION OF THE DHKS QUESTIONNAIRE INTERVIEW.

Unacceptable	1	2	3	4	5	Excellent
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E. OBSERVATIONS TO BE RECORDED AFTER THE INTERVIEW

E1. How well did the interviewer:

a. Handle the respondent's questions?

Rambling	1	2	3	4	5	Clear
Uninformative	1	2	3	4	5	Informative

b. Maintain the flow and pace of the interview?

Poorly	1	2	3	4	5	Very well
--------	---	---	---	---	---	-----------

c. Read the questions as written?

Poorly	1	2	3	4	5	Very well
--------	---	---	---	---	---	-----------

d. Probe (without leading)?

Poorly	1	2	3	4	5	Very well
--------	---	---	---	---	---	-----------

E2. What are the interviewer's strong points?

E3. What areas, if any, need improvement?

E4. Other comments:

3.I Field Staff Memos

WESTAT

An Employee-Owned Research Corporation

MEMORANDUM

TO: What We Eat in America Interviewer *Judy* February 4, 1994
FROM: Judy Meader, Field Director Memo #191
SUBJECT: Questions & Answers, Replacement page, Endorsement Letter

Enclosed in this mailing are three items:

1. Debbie Bittner and Susie McNutt compiled a comprehensive memo answering questions that arose at and after training. Please read through the memo and file it in your Interviewer Manual.
2. We discovered an error on page 5-37 of the Interviewer Manual. Remove page 5-37 from your Interviewer Manual and discard it. Insert the enclosed page. The correction appears in the second bullet, third line.
3. Here is the study's first endorsement letter from the NEA. Insert it in your Fact Book in the Letter section. This letter will be helpful to you when you interview parents and school aged children OR persons involved in education.

I hope you are enjoying your work on What We Eat in America and that Old Man Winter will soon leave us all alone!

Use of Neighbor Information with the Selected DU

If a household member refuses to complete the Screener, you are to proceed as follows:

- Accept the refusal gracefully. Attempt to complete the Neighbor Information Section of the Screener with the household member who is refusing.

You should introduce your request as follows:

"I understand that you are busy but I only have a few questions. It is very possible that if you provide this information, no further information is required from your household."

Proceed through Box 6, questions 20 and 21, as appropriate, and Box 8. If the answer is "no" to all, the Screener is considered an interim refusal until your supervisor authorizes you to code it an S05 (CODE SRF) with no eligible sample persons obtained by household information (not neighbor information, even though you used the Neighbor Information page).

- If you receive a "yes" at Box 6, question 20 and/or 21, or Box 8, the screener would be considered an interim refusal until your supervisor authorizes you to code it an S02.

In some cases, a guest or employee (e.g., a housekeeper or baby sitter) of the household will be the only respondent available to provide Screener data. If so, attempt to complete the Neighbor Information Section of the Screener as explained above. When completed, record name and relationship to household at the bottom of the page.

NOTE: Since the information you are receiving is from the selected DU, it is not necessary to confirm with a second source.

Example #1:

Suppose you are at a household and an older gentleman, appearing to live alone, answers the door. He seems very suspicious and refuses to answer the detailed questions concerning name, race, ethnic origin, etc. The sampling message is #01, which tells you to select all children ages 1-2 years. You have a hunch that this gentleman's household may be ineligible. So rather than accepting the refusal and attempting to contact 2 neighbors, you flip the Screener over in attempt to have the gentleman answer the Neighbor Information questions.

You manage to have the gentleman tell you the sex and age of all household members. They are as enumerated below:

Male 58

1. In Box 6, you would indicate that there is one (1) male aged 50-59. The skip instructions indicate that Question 20 must be answered.

NEIGHBOR INFORMATION

Message #01	123-456-789-0
BOX 6	
HOW MANY?	
MALES: 50-59	<u>1</u>
IF ANY NUMBER, ANSWER Q.20 IF 0, SKIP TO BOX 8	

2. The answer to Question 20 is "NO", because there are no household members less than 6 years of age. The skip instructions indicate that you should not ask Question 21, nor go to Box 7, but skip directly to Box 8.

20. ARE THERE ANY CHILDREN LESS THAN 6 YEARS OF AGE?

YES _____ 1 (Q21)
NO _____ (2) (BOX 8)

21. IS THERE A MALE 18 YEARS OF AGE OR OLDER?

YES _____ 1 (BOX 8)
NO _____ 2 (BOX 7) >

BOX 7

RECORD AGE AND SEX IN
SAMPLE PERSON CHART
BELOW FOR EACH PERSON
IN AGE AND SEX CATEGORY
IN BOX 6.



NATIONAL EDUCATION ASSOCIATION

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Robert Chase, Vice President
Marilyn Monahan, Secretary-Treasurer

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GOVERNMENT RELATIONS
Debra DeLee, Director

January 3, 1994

Dear Resident:

The person presenting this letter is part of an important national nutrition survey called "What We Eat in America." You have been selected at random to participate in this study. I strongly encourage you to do so.

The survey is being conducted by the U.S. Department of Agriculture to determine the dietary status of the population. Results will be used to improve nutrition education and food assistance programs and to monitor the safety of the food supply.

The information you give as part of the survey will be kept confidential and used only along with information given by thousands of other individuals in statistical summaries. Your participation is voluntary. However, if you do not participate, no one else can take your place. Since you represent thousands of other people, valuable information will be lost.

We at NEA fully support the efforts of the U.S. Department of Agriculture in its goal of providing valuable information on the dietary status of the nation's population. If you wish to receive additional information, the interviewer can provide you with a telephone number at which you can verify the survey.

Sincerely,

Michael Edwards
Manager, Federal Relations

What We Eat in America Interviewer Training Wrap-Up

The attached questions and answers are provided to document the information Debbie and Susie presented on the last day of Interviewer Training. Please read and then put this memo into your Interviewer Manual.

During the data collection effort we are sure you will encounter situations which you are not certain how to handle. In addition to providing you with as rapid an answer as possible, answers will be documented in a newsletter. In order to be sure that everyone receives the information they need, we will send out the Interviewer Newsletter at the beginning of each quarter. The newsletter will also include items from you -- for example, project experiences and stories that are worthy of sharing. If you have any suggestions or ideas for columns, please send them to your supervisor with your T&E. Thanks!

GENERAL PROCEDURES

- Q. In what order should I conduct the questionnaires?
- A. The Screener is always first. If SPs are selected, you will then continue with the Household Questionnaire followed by Day 1 Intake Questionnaires. However, if the Household Questionnaire respondent is not available but an SP for a Day 1 Intake is available, it is permissible to complete Day 1 Intake(s) prior to completing the Household Questionnaire, as long as you are in the household on one of the Day 1 Intake contact days (on the label). It is also permissible if you think the household would be more cooperative if you conducted the intake (s) in advance of conducting the Household interview. Use your judgement.
- Q. Is each of the incentives handed to the respondent prior to the beginning of the various questionnaires?
- A. No. The measuring cups and spoons should be handed to the first respondent after the Screener and at the beginning of the questionnaire (either the Household Questionnaire or Day 1 Intake Questionnaire). The cups and spoons are a household level gift. The nylon sack should be handed to each SP at the beginning of the Day 1 Intake Questionnaire. The drinking mug should be handed to each SP at the end of the Day 2 Intake Questionnaire. Both the nylon sack and drinking mug are SP level gifts.
- Q. In training we discussed giving the nylon sack to a child who is not an SP if that child was very upset about not getting one. May we follow this procedure for the drinking mug?
- A. Yes. Keep in mind that we have a limited supply of sacks and mugs and you should only give them to non-SPs if you think it is absolutely necessary.
- Q. How old must a person be to serve as an interpreter?
- A. 16 years of age or older.
- Q. Although we do not ask for last name, is it okay for me to record it if the respondent provides it?
- A. We do not want the last name recorded on the case. There are two exceptions: 1) you will ask the selected DHKS respondent to record his/her full name on the DHKS appointment reminder card; and 2) if data retrieval is required, you will ask for the SP's last name and record it above the Follow Up Call Record. Do not record last names on any other survey material that is sent to Westat.
- Q. Is it okay to do interviews in locations other than the respondent's home?
- A. No. In order to conduct an interview in another location, you would have to make an appointment. Remember appointments are only allowed for certain questionnaires at certain points in the interviewing process. In addition, the respondent loses the ability to reference his/her own dishes and food items.
- Q. On page 4-14, the manual tells us to visit the post office and request a change of address for someone who has moved. I read in the newspaper that the post office was discontinuing this practice. Which is correct?
- A. The post office has changed the procedure and will no longer honor a change of address. Therefore, we will need to send a letter to obtain the correction. If you have a case for which you want a change of address requested, please discuss it with your supervisor.

SCREENER

- Q. On page 11-22, the T&E example includes portions of hours recorded both as decimals and fractions. Which one is correct?
- A. Actually you may use either decimals or fractions on the T&E. However, since the FMS uses decimals, we recommend you consistently use them.
- Q. There are some areas in my community that could potentially be dangerous. What should I do?
- A. Discuss the situation with your supervisor. She may decide to approve the use of an escort.
- Q. Will we be getting more information to provide to the respondents?
- A. As information from the study and about the study is available, we will send it to you so that you can add it to your Factbook. For example, as articles are published in newspapers, we will send you copies from the newspapers in your area.
- Q. There are some local organizations whose endorsement might be useful in helping to convince people to cooperate in the study. Should I contact these organizations?
- A. No. Discuss your ideas with your supervisor. She will then work with the home office to come up with a plan for contact. In addition, do not grant interviews with any local organization or newspaper. If you are contacted, refer inquiries to your supervisor and be sure to notify her to expect a call.
- Q. When reading the introduction, should I always show the gift of measuring cups and spoons?
- A. No. You should only show the gift if your respondent asks what it is. When showing it, be sure to mention that one set is given only to eligible households.
- Q. What is the difference between Line Letters and Sample Person Numbers on the Enumeration Table?
- A. Each person who lives in the household is assigned a Line Letter. This letter will be used to identify household members throughout the Household Questionnaire. Only Sample Persons (SPs) are assigned a Sample Person Number. Once assigned, the SP Number becomes an extension of the Case ID and is used to identify the SP's questionnaires. For example, it is used on the cover of the Intake Questionnaires. It is very important that you use the line letters of household members (including SPs) when completing the household questionnaire and the SP number to identify documents associated with eligible household members.
- Q. If a person qualifies as a YES response to one of the age/sex categories in Box 1 or Box 3, does that mean he/she will definitely be a Sample Person?
- A. Not in Box 1. The top half of the sampling page requires a decision. That is, if you find potentially eligible people in Box 1, you will ask Q14. Q14 will decide if those people are actually selected. If you are sent to Box 2, they are selected; if you are sent to Box 3, they are not selected. The bottom half of the sampling page does not require a decision. If you find potentially eligible people in Box 3, they will always be selected, as instructed by Box 4, item a.

Then if you have selected any person through either Box 1 as instructed by Box 2 or through Box 3 as instructed by Box 4 item a, you will select all persons less than one year old (as instructed by Box 4, item b).

Q. If a neighbor refuses to provide his/her name, address, and telephone number, does the information he/she provided about the selected DU still count?

A. Yes. However, you will almost always have the address since you are at the neighbor's home. Record as much information as the neighbor will provide or that you know and note that the remainder was refused.

Q. I am confused about halfway houses and group homes and whether they should be included as DUs. Are there some rules for us to follow?

A. Please refer to page 3-4. Those units under the DO LIST column should be included as DUs. If you have any question about whether one of your cases qualifies as a DU, discuss the situation with your supervisor.

Q. How should we explain to ineligible households that we do not need to do any interviews (beyond the Screener)?

A. Explain that people are randomly selected at household addresses just as addresses are randomly selected within communities. This random process is very important and by participating in this selection process (the Screener), the respondent has really helped with the study. Then apologize but explain that no one at this address was selected.

Q. Why are we sometimes selecting more than one SP from a household?

A. People are randomly selected based on age and sex at rates determined by our statisticians. We want to give everyone a chance of selection and therefore, do not limit the number of persons who can be selected from a given household.

HOUSEHOLD QUESTIONNAIRE

Q. One of my respondents reported buying vitamins at a specialty store. Should that purchase be included in the amount recorded at Q5?

A. No. Notice on page 13-5 that we are only concerned with food purchases in this question. Do not include non-food items, such as vitamins.

Q. In Q52 there is a category NOT A HOUSEHOLD UNIT IN 1993. Should this category only be used when the male and female head of household did not live together or can it also be used for roommate situations?

A. It should be used for either situation. The specification on page 13-27 should mention roommates in addition to mentioning the male and female head of household.

Q. At Q56, how should I record income from a source not specifically listed and which I am not sure should be included in one of the categories (e.g., state disability)?

A. If you are not sure whether an amount should be recorded, record it with a note providing the source of payment. We can then make the determination at the home office.

INTAKE QUESTIONNAIRES

- Q. If I run out of room on the Quick List, what should I do?
- A. It is unlikely that you will run out of room but if you do, simply fold the Quick List under and continue to record on the questionnaire cover.
- Q. If my SP goes into great detail during Q1 of the Intake, may I interrupt him/her?
- A. We do not want you to interrupt the respondent during the Quick List. However, especially during the Day 2 Intake, the respondent may go into a great amount of detail. In that case, you may use the sentence from Q1 of the Day 2 Intake: "I'll ask you for the detailed descriptions and amounts later."
- Q. When should I use Hand Card I1?
- A. Whenever it is needed to help explain the reference period to the respondent. It is important that he/she understands we are asking about the previous day starting at 12:00 am and ending at 11:59 pm.
- Q. When interviewing a child with an adult assistant, who should respond to the Quick List (i.e., Q1)?
- A. Our preference is that children ages 6 - 11 complete the Quick List by themselves and then be assisted by the adult. However, it is acceptable for the child to interact with the assistant when reporting food items in the Quick List. On page 7-4 of your manual, delete the phrase in parentheses in the first paragraph. That is, the second sentence should read: "After the child reports the Quick List, address the next statement to both the child and the assistant."
- Q. When do I need to ask Q2?
- A. For the first food item listed on the Quick List, for each food item where the answer to Q6 is another time, for each food item for which Q6 was not asked, and for each food item that does not have a time noted in Q2. Remember it is important that you read Q2 exactly as written.
- Q. Do I need to rewrite the food item in Q4 if the name/kind is the same as that written in the Food/Drink and Additions column?
- A. No, you do not need to rewrite it if it is the same (e.g., pinto beans, grapefruit juice). However, do not assume it is the same and always record the final response in Q4 (e.g., if respondent reports butter but used margarine, margarine should appear in Q4).
- Q. I'm confused about when to use brackets. Please review.
- A. Always bracket combination foods. These are foods with additions and foods with separate ingredients. Please see pages 14-25 through 14-30 of your manual for a definition of combination foods.
- Q. If the respondent has reported the amount as part of Q4, is it necessary that I read Q5?
- A. Yes. You must always read Q5. It is very important that the respondent understands (and you record) the amount actually eaten or drunk by the SP.
- Q. If in response to Q5 the respondent says "1 cup," do I need to confirm the amount?
- A. You should always confirm the amount reported by pointing to a measuring guide if the respondent did not use a

guide to estimate the amount. If the respondent reports in tablespoons, teaspoons, or portions of teaspoons, you should also confirm that it was a level amount.

Q. In Q6, what is meant by the phrase ASK IF NOT OBVIOUS?

A. "If not obvious" means if you have not made a note in the Quick List about the time or eating occasion.

Q. What is the purpose of Qs 7 through 9?

A. With these questions, we are trying to find out which food items came from the home food supply. This means: 1) foods that were purchased in a store, taken home, and eaten; 2) foods that were purchased in a restaurant or fast food place that were delivered to the home or taken home and eaten; and 3) foods that were eaten in those establishments and taken home as leftovers. For examples of when Q9 is appropriate, see page 14-61.

Q. If at Q29 and Q30, the SP does not know or refuses to report his/her height and/or weight, should I record my observation in the margin?

A. No. We are only interested in the respondent's answer to these questions. If the respondent does not know or refuses, make the appropriate marginal note (i.e., DK or REF).

Q. May I erase on the intake grid?

A. No. Please cross out when you record incorrectly on the grid. If you find errors during your edit, mark IE or ME followed by the hanger or a word in the probe (e.g., ME type) for errors in Q4; and mark IE or ME followed by amount (e.g., ME amt) for errors in Q5.

Q. Is it necessary for a child 6-11 to be present for the entire intake?

A. We want the child to be present through Q15 (the water question) and then be available to answer Q35 (the TV question).

Q. If a child SP and his/her adult assistant disagree about the answer to a question, what should we do?

A. Let them work it out. If they cannot come to an agreement, record the SP's response.

Q. If I am interviewing a proxy/assistant and he/she remembers a food not reported on his/her own intake, may I go back and add to the Intake?

A. Yes, as long as both interviews are being conducted on the same day.

FOOD INSTRUCTION BOOKLET (FIB)

Q. If a baby eats ground up table food, should I ask the probes from the baby food section?

A. No. Page 3 of the FIB refers only to commercial baby food. If the respondent purees table food, that should be probed from the appropriate category.

Q. If a child drank milk at school and does not know what kind it was, is it helpful to get the color of the milk carton?

A. Yes. This could be particularly helpful in retrieving the data. It is possible that the child has a choice of milk and the color will help the school distinguish the kind of milk actually drunk by the child.

Q. When asking about soda (page 10), what should I record to the probe "was it decaffeinated or not decaffeinated" if the respondent says "it was regular?"

A. You will need to ask the probe again because we need to know what the respondent means by the word regular. Do not assume you know and do not record regular as the answer to that probe.

Q. If the respondent reports drinking homemade alcohol, which FIB category should I use?

A. Use the nonalcoholic and alcoholic (beer, wine, cocktails) and liquor category on pages 12 and 13.

Q. When asking the amount of french fries actually eaten (page 34), do I need to ask the number of pieces?

A. Please notice there are 4 ways to record the amount of french fries eaten. For example, if the fries were from a restaurant or fast food place, you only need to know the size of the order that was eaten (or portion of the size order).

Q. If a respondent reports the amount of vegetables eaten as a volume, the FIB instructs us to ask whether it was raw or cooked and to ask the form. I don't understand why? Isn't this information part of Q4?

A. Q5 is not asking whether the SP ate the vegetable raw or cooked but rather whether the quantity reported is for a raw or cooked vegetable. For example, consider spinach. A cup of raw spinach represents a different amount than does a cup of cooked spinach.

Q. If the respondent reports a game meat, which FIB category should I use?

A. Use the beef, lamb, veal, and game meats category on page 37.

Q. Why don't we ask the brand name for pizza?

A. We do. Please notice the probe on page 45: "If not school cafeteria -- What was it?" If the pizza was obtained from a school cafeteria, we do not ask for the brand name. If a pizza is from a fast food supplier but is part of the school lunch served, it would still be considered a school lunch pizza and we will not get the brand name. However, if the pizza was purchased from a fast food concession on a school campus, it would be considered a fast food pizza and we would get the brand name.

Q. When asking about the amount of pizza actually eaten, do I need to get dimensions?

A. Not necessarily. Please notice that there are a number of ways to record the amount of pizza eaten. Please review these on page 45.

Q. If the respondent reports eating a fast food hamburger, is it necessary to ask the first probe on page 55 (name of item)?

A. Yes. Sometimes respondents will use hamburger in a generic way. You could easily get a more complete name (e.g., Whopper, Big Mac, etc.).

Q. I'm confused about how to record sandwiches. Please review.

A. Remember the demonstration on the last day of training. We want to get all of the ingredients and amounts in Q4; that is, we want to construct the entire sandwich in Q4. Then, we want to

- know how much of the sandwich the SP actually ate in Q5.
- Q. If the respondent reports eating cheese and crackers, which FIB category should I use?
- A. If the respondent reports cheese and crackers as one food in the Quick List, transfer to the Food/Drink and Additions column and ask the cracker probes (page 67). If the cheese and crackers were commercially prepared (i.e., the respondent purchased a package of crackers with cheese on), the crackers probes on page 67 are all you will need. However, if the respondent put cheese on his/her crackers, cheese will be recorded as an addition and you will need to ask the cheese probes on page 23.
- Q. What should I do when a respondent does not know the answer to FIB probes?
- A. Don't know (DK) is an acceptable response. However, be sure your respondent understands that he/she may look at food labels, etc.
- Q. May I use common abbreviations when recording responses to the FIB probes?
- A. The only acceptable abbreviations are those listed in the FIB under the Abbreviations tab. You will be notified of any additions to this list.
- Q. I forgot what to say when I see three dots in the FIB. Please help.
- A. Three dots (...) always mean "or something else." It is important that you say this so that the respondent does not feel limited by the question (i.e., does not feel that he/she has to choose from only those items listed).
- Q. There are some foods I would like to see added to the Index. What should I do?
- A. Feel free to personalize the FIB as you need to. There is space at the end of the Index to add foods or you may write foods in the Index in alphabetical order.
- Q. When should I read the questions in parentheses?
- A. The questions in parentheses are to be asked only if the respondent can not respond to the first question.
- Q. When do we use thickness sticks?
- A. The FIB tells you when to use them. The thickness sticks should only be used for recording the thickness of three foods: meat (page 37), poultry (page 42), and cheese (page 23).
- Q. If the respondent mentions a food and I don't know which FIB category to go to, what should I do?
- A. Whenever you don't know where to go for a food and there is more than one ingredient, go to mixed dishes (pages 52 and 53). If the food does not have more than one ingredient, ask the respondent to describe the food item a little so that you are able to classify it.
- Q. When can I reference a food with ingredients back to another SP?
- A. Only if the food ingredients are the same or have only one change. Remember that if you reference back to another SP you must always ask the SP if he/she added anything to the food.

- Q. If the SP drank coffee a number of times during the day but does not know how much was drunk each time, what should I record?
- A. If the SP does not know the amount eaten/drunk for each occasion, at one of the occasions record the total amount and refer the other quantities to that amount.
- Q. The respondent reported eating "8 ounces" of popcorn so I recorded "8WO." Was that correct?
- A. Not necessarily. You must ask what was meant by "8 ounces." Did the respondent mean "8WO" (e.g., package weight) or "8FO" (e.g., 1 cup)? If the respondent was referring to the amount of popcorn in 1 cup, record as "1 cup" since solids cannot be recorded as "FO." Remember, you must also record whether the amount reported was popped or unpopped.

DIET AND HEALTH KNOWLEDGE SURVEY QUESTIONNAIRE (DHKS)

- Q. Since we do not obtain last names, should I address the appointment reminder card using only the first name of the selected respondent?
- A. At the time you arrange the DHKS appointment with the selected respondent (right after his/her Day 2 Intake), you should ask the respondent to record his/her name and address on the card for you. This will serve two purposes: 1) we will be sure to have the correct name and mailing address; and 2) it will introduce the card to the respondent so that he/she will recognize it when it arrives.

- Q. If the respondent mentions a health condition not listed in Q6, should I always code 17 for health problem not specified?
- A. No. Please review the specifications on page 15-15. Notice that if the respondent provides a response that is not on the list, you should code "00" and specify the health problem. You should only use code 17 if the respondent knows the behavior is not healthy but cannot name any specific health problem.
- Q. There is a box instruction after Q23 that sends me to Q26. When would I ever ask Q24 and Q25?
- A. After Q16, there is a box (Box 1) which instructs you to review the answers to Q16. If the respondent answered NEVER (4) or NEVER SEEN (5) to all parts of Q16, he/she does not use food labels. Therefore, questions 17 through 23 are inappropriate to ask and we skip you to Q24 and Q25. On the other hand if the respondent does use food labels (code 2 in Box 1), questions 17 through 23 are asked but we skip Q24 and Q25.

- Q. Should sweet potatoes be included in the response to Q27?
- A. No. However, sweet potatoes should be considered when responding to Q28.

FIELD MANAGEMENT SYSTEM (FMS)

- Q. If I experience a loss of power (or interruption of power) while working on the FMS, what should I do?
- A. Nothing. When you lose power, your PC will automatically begin using battery power. Since the battery recharges whenever the PC is plugged in, you should have plenty of battery charge to complete your work during that session.

WESTAT

An Employee-Owned Research Corporation

MEMORANDUM

TO: What We Eat in America Interviewers

FROM: Judy Meader and Susie McNutt

SUBJECT: Field and Food Issues

April 20, 1994

Memo #219

Your diaries and general inquiries raised a lot of good questions, not all of which were addressed in the Newsletter. This memo will answer all other questions you have brought to our attention. Please read the memo carefully and annotate your manual or FIB, as appropriate, as you start your Quarter 2 assignment.

Collecting Age Information on the Screener - In almost all cases, you have done an excellent job collecting complete household enumeration data. That is, all questions in the enumeration grid are answered for all household members. In a very small number of cases, you have not been able to collect the age of one or more household members. You must make every attempt to collect the birthday (Q11) and/or age (Q12) of each household member. If this is not possible, please follow these revised instructions to complete the enumeration grid.

- If the age is unknown or refused, determine the household member's age range by referring to the sample message label and asking, for example, "Are you/Is (NAME) 40 to 69 years old?"

- If this is not possible, collect the age information required to determine if the household member is eligible for selection. For example, "Mary, could you please tell me if you are 40 or older?"

- Indicate that the message label range was asked by noting on the screener, next to the sample message box, "Asked range."

- With supervisory approval, assign a screener status code of complete with a household member (either S01 or S04, as appropriate).

Using the Age Chart in the Handcards - The age chart must be used to determine age at the time of screening. After checking the chart and while recording age on the grid, you should say to the screener respondent something like "And John is 45 years old?" This is a way of confirming your age chart. To determine age proceed as follows:

Refer to the third Hand Card and the birthdate in Q11 to determine the person's age. To use the Age Chart, start with the person's year of birth. If the person's birthday is on or before the date of the interview, the "Yes" column will list the age. If the person's birthday comes after the date of interview, the correct age will appear in the "No" column. Verify the age with the respondent. Record the age as a 3-digit number. Circle the code for years or months. Remember, a child's age should be recorded in months if the child is under a year old.

Seasonal Dwellings and Vacation Homes - Spring and summer bring a new dimension to screening if you are working in an area with vacation cabins, fishing camps, or other seasonal dwellings. In these areas, you must first establish that the residents DO NOT have a usual residence elsewhere before enumerating the household. As stated on page 5-4 of the Interviewer Manual, "The usual residence or home is the place the person lives most of the time." By "most of the time," we mean six months or more of the year. Therefore, a family at its seashore home for the summer is not eligible for survey participation at the shore if they reside at the shore home for less than six months of the year.

Food Instruction Book Issues - As you know, not all foods fit into the FIB categories. Occasionally you need to obtain information not asked for in the FIB to ensure the food description is complete. Many of you have asked for the correct way to record these foods. Below is a list of interviewer questions and recording instructions. Please continue to ask for recording clarification, it helps all of us.

- Q. I can't find pig's stomach (also known as tripe) and chitterlings in the FIB. What do I do?
- A. Tripe and chitterlings can be probed from the **Liver, Organ Meats** category on page 39.
- Q. Are the probes for a breakfast sausage and biscuit sandwich found in the **Sandwich, Frozen Meal, or Fast Food** category?
- A. If the sausage biscuit sandwich is frozen, go to the **Frozen Meal** category (page 47) in the FIB. If it is a fast food brand such as McDonald's or Hardee's, go to the **Fast Foods** category (page 55). And, if it was put together by the respondent, go to the **Other Sandwiches** category (page 60).
- Q. How do you record chocolate milk when the respondent reports the milk was made by adding chocolate syrup to white milk?
- A. Treat the chocolate syrup like an addition to milk (even though the FIB doesn't probe for additions). Record milk on one line with the description in column Q4. Then record the syrup on the next line in the Food/Drink and Additions column. Record the quantity of milk consumed in column Q5, then go to page 19 for the chocolate syrup description, and record the amount in Q5.
- Q. In the Ready-to-Eat Cereal category, the first probe asks for the **BRAND** name. Does that mean the name of the cereal or the manufacturer's name?
- A. Please give us both the cereal and the manufacturer's name, like General Mills Cheerios. Some interviewers are only recording the manufacturer's name, which cannot be coded by Westat.

- Q. What do you do when a subject reports drinking a beverage from a self-serve soda dispenser that was a mixture of flavors and both caffeinated and decaffeinated?
- A. Ideally, we would like to know the different brands of soda in the beverage (i.e. Coke, Ginger-ale, Sprite, etc.) with an approximation of the portion drunk of each brand. If that is not possible, try to get an estimate of the portion that was a cola versus non-cola. And in addition, the amount of cola that was caffeinated versus decaffeinated. The portion amounts should be recorded in Q4; the total consumed, in Q5.
- Q. How should I treat homemade salad dressing?
- A. Homemade salad dressings are treated the same as commercial dressings in the **Salad Dressing** category on page 69. Record "no brand – homemade" for the probe under the hanger **BRAND**. Make sure the salad dressing name describes the dressing such as Uncle Charlie's Blue Cheese dressing not "Uncle Charlie's favorite dressing."
- Q. Where do I find peanuts and corn dogs, they are not in the Index?
- A. Probes for peanuts can be found in the **Nuts, Seeds** category on page 68 and for corn dogs in the **Hot Dogs** category, page 57. The Index is not a complete listing of foods and these items are not in the Index. Blank lines are provided at the end of the Index for you to write in commonly reported foods not listed. In the next revision of the FIB we will update the Index to include suggested foods such as peanuts and corn dogs.
- Q. What do you call "plain old bread" that's not sandwich, Italian, French, raisin, or pita?
- A. Record "plain old bread" as sandwich bread.
- Q. How do you record a prepackaged tossed salad that is mixed with cabbage and carrots?
- A. Use the **Green Salads** category. If the respondent cannot report the ingredient amounts, record "DK amt" next to each ingredient listed in Q4. Remember to report the total eaten in cups in Q5.
- Q. I can't find Spaghetti O's or "canned" pasta of any kind in the FIB. Where is it?
- A. The **Spaghetti** category, page 50, contains probes that are appropriate for canned pasta. Under the Q4 hanger **IF COMMERCIALLY CANNED** are three probes. When you ask Q5, "How much of these Spaghetti O's did you actually eat?", record the response as pasta and sauce mixed together.

- Q. We have a fast food restaurant in my area of the country called *Sonic*. It's not listed in the **Fast Food** category but it's really difficult to put a fast food hamburger through the **Other Sandwich** category. What should I do?
- A. For a fast food hamburger other than those listed, the FIB refers you to the **Hamburger on Bun** category, page 56. The probes in this category are specific enough to hamburgers that the respondent should be able to accurately describe the sandwich. During this survey USDA will be updating the fast food categories. *Sonic* hamburgers and other regional fast food chains may be added to the data base. But in order to accurately categorize these foods, you have to probe for as complete a description as possible from the respondent. Feel free to send in market check information so the data base can be expanded.
- Q. Which category do I use for nachos?
- A. If nachos are tortilla chips with toppings added in preparation such as refried beans, peppers, olives, and cheese, go to the **Tacos, Burritos, Enchiladas, and Fajitas** category (page 46). If the respondent is referring to plain tortilla chips, go to the **Chip** category (page 67).
- Q. How do I record a dry protein powder mixed with plain water? If I follow the FIB I would mark the water off. But because it was added to the protein powder it should be bracketed and an amount recorded. This is unclear.
- A. You are correct, the FIB does tell you to mark the water off if it is not carbonated and has no additions. But in this case, we are interested in the water because protein powder was added to it. We need the amount of water to which the powder was added. Just as you suggested, record the water as a separate line item with the quantity drunk in Q5, and bracket the powder and water. Remember to collect the amount of powder also.
- Q. Butter in restaurants is not always served in a pat or container. How do I report the amount?
- A. Report the amount of butter consumed as a volume (e.g., tsp, or Tbsp).
- Q. How do I record homemade carrot juice?
- A. Record all homemade (or commercial) 100% fruit and vegetables juices (except orange juice) using the **Juices (100%)**, **Nectars** category on page 9. For the **Vitamin C** probe, record "DK Vit C -- no label"; for the **BRAND** probe, record "no brand"; and for the **Type** probe, record "homemade".

- Q. How do I record homemade french toast? The FIB **French Toast** category seems geared to commercial products. Don't you need information about the type of bread, eggs, milk, and fat?
- A. No, we don't need to know the ingredients used to prepare the french toast. Use the **French Toast** category (page 18). It is important to record whether the slices were regular or thick in column Q5.
- Q. I can't find chicken wings in the FIB. I know that often people eat just the drumette part of the wing. How should I record this?
- A. Use the probes in the **Poultry** category (page 42) to collect information about chicken wings. Record drumettes when the respondent reports them.
- Q. How do I record frozen chicken parts?
- A. There is no need to record "frozen" chicken parts. It makes no difference whether the chicken parts were fresh or frozen before they were cooked. What is important is what parts were eaten and how they were prepared.
- Q. Flavored coffees from a coffee cart or from a mix have milk in them, but the respondent would not know how much. What do I do?
- A. If the coffee is from a dry mix (such as International Coffee products), follow the FIB by asking the probe after the hanger **If powdered mix**. If the coffee is from a coffee cart and has other ingredients added in preparation, such as in cappuccino and cafe latte, record the name of the coffee and that it was from a coffee cart. Record DK form if the respondent does not know the form. Then ask the probes after the **TYPE** and **ADDITIONS** hangers. Do not try to collect the amount of milk used in preparing the coffee.
- Q. There is no category for onion rings, what information should I obtain?
- A. You are right, there is no specific category for onion rings. However, by modifying the **Vegetable** category (page 35) you can obtain the information needed. Change the probe after **TYPE** to read "Was it raw, pickled, cooked, or batter-fried?" Ask **TYPE**, **SALT**, **FAT**, and **ADDITIONS** for onion rings. "Funyuns" or other onion-flavored snack type rings should be recorded in the **Chips** section.

- Q. How do I record additions to orange juice? In my part of the country many people add ingredients to their orange juice such as brewers yeast and bran.
- A. Record additions to orange juice following the **ADDITIONS** procedures. In this case neither brewers yeast or bran need more description. So, you would record brewers yeast on one Food/Drink and Additions line and bran on another. Record "brewers yeast" and "bran" in column Q4 on the appropriate lines, and then record the amount of yeast and/or bran drunk in column Q5.
- Q. I can't find a food category for dumplings. Where do I go?
- A. If dumplings are part of a mixed dish such as chicken and dumplings, record the dumplings as part of the ingredients in the mixed dish. If the reported dumpling is a side dish, such as pork dumplings, go to the Mixed Dishes (Commercial, Restaurant, or Recipe Unknown) category and record the ingredients in Q4 and the number consumed in Q5. If the dumpling is fruit-filled, such as an apple dumpling, use the Pies, Tarts, Strudels, Turnovers category, recording the number of dumplings eaten in Q5.
- Q. The **Pizza** category does not ask for enough description for pizzas made from a home recipe. What do I do?
- A. You do not need to collect more information for a homemade pizza. Record the respondent's description of the pizza using the probe after the hanger **KIND** (i.e., bacon, sausage, extra cheese, and type of vegetables); the crust thickness; and "no brand -- homemade" for the hanger **BRAND**.
- Q. Should potatoes and carrots cooked with a pot roast be recorded as a mixed dish (with the potatoes and carrots as ingredients), or should the potatoes and carrots be considered additions to the meat?
- A. Record the vegetables as additions to the meat. Put each one on a separate line in the Food/Drink and Addition column, describe them in Q4, and record the quantity eaten in Q5.
- Q. Hamburger Helper is not in the FIB. What do I do?
- A. Use the **Mixed Dishes** (Commercial, Restaurant, or Recipe Unknown) category on page 53 to probe for Hamburger Helper dishes. Hamburger Helper is a manufacturer's name for a variety of boxed main dish products that require adding hamburger. There are also Tuna Helper and Chicken Helper boxed mixes. Record the product name after the hanger **BRAND** (such as Hamburger Helper Stroganoff or Hamburger Helper Rice Oriental).

**3.J Interviewer Debriefing Questionnaire
Showing Tally of Responses and Comments**

NAME: _____

SUPERVISOR: _____

PSU #: _____

PSU NAME OR LOCATION: _____

what we eat in
AMERICA
1994-96

WHAT WE EAT IN AMERICA: 1994-1996
CONTINUING SURVEY OF FOOD INTAKES BY INDIVIDUALS

Interviewer Debriefing Questionnaire

The following questions are designed to help Westat learn more about the "What We Eat in America" study. You, as an interviewer, have the most experience with the data collection. Your ideas and suggestions will be considered when planning for the 1995 and 1996 Survey. For each question below, please circle the code or fill in the blank. Keep in mind any special problems you may have encountered while interviewing.

1. Take a minute to think about the introductory letter, brochure, flyers, and your handbook.
 - a. How often do you use these materials to convince reluctant respondents, avoid refusals, or convert refusals?

b. How well do these materials work to convince reluctant respondents, avoid refusals, or convert refusals?

1

2. Is there sufficient information provided to introduce respondents to the survey and to the subject matter of the Screener, Household Questionnaire, and Intakes?

YES 65
NO 12

If no, what other information should be provided? Information about the specific uses of the CSFII data and how respondents can find out about survey results. (5)*

3. Do the respondents have difficulties classifying themselves into the precoded categories in Screener questions 9 and 10, the race and national origin questions?

YES 17
NO 60

If yes, what are the difficulties? Hispanics and Puerto Rican respondents have difficulty/refuse to classify themselves as anything other than Hispanics. (9)

4. During quarters 1 through 3, approximately 10 percent of the Screeners were completed with neighbors. Did any of the following contribute to your having to collect screener information from neighbors?

	<u>YES</u>	<u>NO</u>
Locked buildings or complexes	34	43
Refusals at the selected household	46	31
Inability to contact selected household	67	10
Other situations (SPECIFY):	9	68

5. Did you encounter any difficulties obtaining screener information from neighbors?

YES 48
NO 29

If yes, what were the difficulties? Some neighbors did not know the respondents. (15) Neighbors were reluctant to give any information/privacy issues (40)

6. What flow of work is most efficient for you, or how do you best manage your workload?

Complete one area or segment at a time (21)

*The number in parenthesis following a verbatim response is the number of interviewers providing the response. In most cases, only verbatim responses reported by two or more interviewers are documented.

HOUSEHOLD QUESTIONNAIRE (HHQ)

7. After screening and identifying the SPs, how do you introduce the Household Questionnaire?

Please describe: - Some interviewers go directly into the HHQ without interruption: (7)

- "This Questionnaire has to do with your food shopping habits and what you spend." (18)

- "The first Questionnaire I'd like to do is what we call a Household Questionnaire. This requests information about food purchasing, preparation, and other information about household characteristics." (23)

8. Have you encountered any difficulty choosing the HHQ respondent?

YES 3
NO 74

If yes, please describe the difficulty: _____

9. If the HHQ respondent is not the Screener respondent or has not completed an Intake, do you have enough information to introduce the HHQ?

YES 71
NO 6

If no, what other information should be provided? _____

10. In most cases, the measuring cups and spoons are given at the start of the Household Questionnaire. Do you find that giving the gift at this time is helpful in gaining the cooperation of the household?

YES 66
NO 11

If no, why not? Respondents have already decided to participate in the survey. (4)

11. Are most respondents' reactions to the CUPS and SPOONS....

POSITIVE? 72
INDIFFERENT? 5
NEGATIVE? 0

12. In quarters 1 through 3, about 15 percent of the occupied households selected for survey participation refused to complete the HHQ. What are the most common reasons for refusal?

- The respondent(s) has already refused to participate in the entire survey. (13)

- The financial questions (21)

- Lack of time/too busy (19)

13. Please describe some of your successful HHQ conversion techniques:

- Leave the HHQ until the first Intake is completed. There will be a greater rapport with the household and less resistance to the more sensitive questions. (7)

- Explain the confidentiality of the information collected. Also, explain the importance of the information and the purpose of the survey. (20)

14. In the HHQ, Q 49 refers to net income received from the business or farm ONLY.

- a. Do you understand the question clearly?

YES 75

NO..... 1

NO OPINION..... 1

- b. Do you think the majority of your respondents understand the question?

YES 68

NO..... 7

NO OPINION..... 2

INTAKE QUESTIONNAIRES

DAY 1 INTAKE

15. Do you experience any difficulty asking the food questions in the order that they are presented?

YES 19

NO..... 58

Which series of questions causes difficulty? Sandwiches (2), mixed dishes (2),
the review (3)

16. Are there any questions in the Intake that the respondent has difficulty understanding?

YES 22

NO..... 55

Question Number	Difficulty and Suggested Revision
Q26	What is a fish oil supplement? (3)
Q41	Any other alcoholic beverages? Are there any? (5)
Q17	Confusion about water sources. (3)
Q24	Understanding the difference between vitamins (2)

17. Please rate the following items:

	EXCELLENT	GOOD	FAIR	POOR	NO OPINION
Size of columns for intake questions	16	35	15	9	2
Ease of using fold-out	22	33	13	7	2
Laminated question cards	33	37	1	0	6
Hand cards	27	27	16	5	2
Yesterday's Food Intake (Handcard I1)	17	39	9	5	7

18. At times interviewers have difficulty recording certain food items as trained (i.e. additions to food, ingredients for salads and mixed dishes, or some specific food items).

Which foods, if any, are difficult for you? Some sandwiches (12), mixed dishes (22), ethnic foods (8), salads (7)

Do you have suggestions to improve the procedures? Create a better index (4), add more fast food restaurants - include regional restaurants (5), ask for home recipes (2), simplify hangers and delete some (4)

19. How often do you use the thickness sticks?

FREQUENTLY	27
SOMETIMES.....	30
RARELY	19
NEVER.....	1

20. Did you usually use the thickness sticks for any of the following food items?

	<u>YES</u>	<u>NO</u>
Cake.....	12	65
Cheese.....	57	20
Fish	25	52
Meat.....	63	14
Pizza	10	67
Poultry	19	58
Vegetables.....	5	72
Other (SPECIFY):.....	8	69

21. Do you use the ruler for estimating the size of foods...

FREQUENTLY?	40
SOMETIMES?.....	26
RARELY?	8
NEVER?	3

22. Did you usually use the ruler for any of the following food items?

	<u>YES</u>	<u>NO</u>
Bread	32	45
Crackers	29	48
Cheese.....	52	25
Doughnuts.....	6	71
English muffins.....	6	71
Meat.....	62	15
Pizza	52	25
Other (SPECIFY):.....	20	57
<u>Cake (13), candy (2), pie (5), sausage (3), vegetables (3),</u>		
<u>lasagna (2), fruit (3), fish (1)</u>		

23. How often do you use the pint measuring cup to measure the content of the respondents' bowls, cups, mugs, and glasses?

FREQUENTLY	20
SOMETIMES.....	41
RARELY	13
NEVER.....	3

24. How often do you use the measuring cups and spoons for estimating the amounts of foods?

FREQUENTLY	69
SOMETIMES.....	8
RARELY	0
NEVER.....	0

25. Is it difficult to collect quantity information for any specific food?

YES	34
NO.....	41
NO OPINION.....	2

If yes, which foods are the most difficult? Salad (5), snacks (9) (potato chips, popcorn, nacho chips), portions of food (bites, sips) (4)

26. How often is the Intake interview conducted in the following places:

	<u>ALWAYS</u>	<u>SOMETIMES</u>	<u>RARELY</u>	<u>NEVER</u>
Kitchen	7	64	6	0
Dining room	1	64	9	3
Living room	2	51	20	4
Some other place in the house	0	11	32	34
Outside of the house	0	15	32	30

27. The nylon bag is presented to the respondent prior to the Day 1 interview. Do you find that giving the gift at this time is helpful in gaining the cooperation of the SP?

YES 59
 NO..... 15
 NO OPINION..... 3

If no, why not? The SP has already decided to participate in the survey. (12)

28. What are most respondents' reactions to receiving the nylon bag?

POSITIVE..... 75
 INDIFFERENT 2
 NEGATIVE 0

29. Is the nylon bag more popular with any one demographic group (age, sex, etc.)?

YES 28
 NO..... 49

If yes, which group(s)? Young children/school children (20), females (14)

30. During the 1994 survey, approximately 14 percent of Day 1 Intakes were not completed on one of the three days specified on the label. What reasons contributed to this deviation from specified procedures? Rank order the reasons with 1 being the most common reason you weren't able to complete the Intake interview on a label day and 4 or 5 being the least significant reason.

	1	2	3	4	5
Respondent availability <input type="checkbox"/>	57	3	1	1	1
Interviewer availability <input type="checkbox"/>	1	15	16	14	3
Observer's schedule <input type="checkbox"/>	0	1	7	23	4
Refusal conversion <input type="checkbox"/>	6	21	8	6	2
Other: Multiple Attempts	2	0	0	0	1
Other: Jewish Holidays	0	0	0	1	0
Other: Mistake	1	0	0	1	0

31. Although most respondents are eager to cooperate, older men (50+) had the highest refusal rate. In your experience, why do you think this situation is occurring?

- They do not trust the government. (15)

- They think the survey is a waste of time and money. (15)

- They are not interested/too busy. (26)

How do YOU convince older men to participate in the survey?

- Convince the respondent that the questions will go quickly. (3)

- Try to determine a common interest and flatter them. (8)

- Let the respondent know that he is important and cannot be replaced. (6)

- Sympathize with them and acknowledge the importance of their time. (2)

- Tell them that you are willing to work at their convenience. (3)

- Smile and make sure you can answer their questions. (2)

DAY 2 INTAKE

32. The mug is presented to the respondent as a thank you at the end of the Day 2 interview. Do you find that giving the mug at this time is helpful in maintaining goodwill?

YES 65

NO 11

NO OPINION 1

If no, why not? The SP is expecting to get the gift at the beginning of the interview. (7)

33. What are most respondents' reactions to receiving a mug?

POSITIVE 65

INDIFFERENT 11

NEGATIVE 1

34. Is the mug more popular with any one demographic group (age, sex, etc.)?

YES 21

NO 56

If yes, which group(s) young children/school children (9)

35. In the 1994 survey, approximately 27 percent of the Day 2 Intakes were mistimed. In most cases, respondents were interviewed more than 10 days after the Day 1 Intake. What suggestions do you have for improving the rate of completion within the 3-10 day window?

- Allow interviewers to make appointments (16)

- Extend the window to 3-14 days (8)

- Go back to the household in 3 days, not 10 (8)

- Ask the respondents the best times to return (8)

36. Did you conduct any Day 2 Intakes over the telephone?

YES 31
NO 46

How many? one = 12, two = 5, three = 5, five = 2

What, if any, difficulties did you encounter when administering the Day 2 Intake over the telephone? _____

How did you overcome the difficulties? _____

PROXY INTERVIEWING -- ADULTS

37. In 1994, did you conduct any Intakes with a proxy representing an adult SP?

YES 40
NO 37

How many? one = 28, two = 6, three = 2, ten = 1

What, if any, difficulties did you encounter when administering the intake to a proxy? _____

How did you overcome the difficulties? _____

INTERVIEWING ADULTS ABOUT INFANTS

38. Have you had any problems obtaining Intake information for infants?

YES 9
NO 67
NOT APPLICABLE 1

If yes, what types of problems have you encountered? Embarrassed mothers (1), recording times (1), refusal to answer questions (1)

INTERVIEWING CHILDREN (6 TO 11 YEARS OF AGE) WITH ADULT ASSISTANT HELP

39. Did you conduct interviews in any households with SPs 6 to 11 years of age?

YES 74
NO 3

40. Overall, did you have any difficulty with the following:

	<u>YES</u>	<u>NO</u>
Child cooperation	6	68
Parent assistance	5	69
Parent and child conflict concerning food items eaten	28	46
Other (SPECIFY):	2	72
<u>Child vs. child conflict</u>		

41. Did you ever conduct a follow-up data retrieval call to a school, day-care center, baby-sitter or other caretaker?

YES 50
NO 24

42. Did you encounter any problems retrieving the information?

YES 18
NO 32

If yes, describe the problem(s): - Not getting a direct answer from the different school systems
(getting the run around) (11)

- Trying to determine how much and which food the child had eaten. (4)

- Hostile school districts (3)

How did you resolve the problem(s)? Patience

43. Did you have any problems with the data retrieval procedure?

YES 9
NO 41

If yes, describe the problem(s): Schools and cafeteria staff wouldn't return calls and were
uncooperative. (4)

How did you resolve the problem(s)? Persistence (3)

FIB QUESTIONS

Your FIB was updated in July and additional modifications are being made now for use in the 1995 Survey. We need your feedback to ensure we are improving the FIB.

44. Is the FIB organized in a way that is efficient for you to use?

YES	66
NO.....	9
NO OPINION	2

45. Are there any foods that you are not able to locate in the Food Instruction Booklet?

YES	38
NO.....	37
NO OPINION	2

Which ones? Ethnic foods (12)

46. How often do you use the index in the back of the FIB?

ALWAYS	15
FREQUENTLY	36
SOMETIMES.....	20
RARELY	6
NEVER.....	0

47. Please refer to the index of your FIB. Are there any foods that you have added to the index since the new FIB change pages were distributed in July?

YES	23
NO.....	54

Which foods have you added? Bread sticks (3)

48. Are there any probes in the FIB that are confusing or particularly hard for the respondent to answer?

YES	25
NO.....	52

Which probes are the most troublesome? _____

49. Are any quantity measures suggested in the FIB difficult to use?

YES	12
NO.....	64
NO OPINION	1

Which ones? meats (6), pizza (3), poultry (2)

50. Are there specific foods that are difficult to quantify?

YES	28
NO.....	48
NO OPINION	1

Which ones? Potato chips (10), popcorn (4), peanuts (4)

THE DIET AND HEALTH KNOWLEDGE SURVEY

51. Do you experience any of the following difficulties administering the DHKS over the telephone?

	<u>YES</u>	<u>NO</u>
Flow of interview	17	60
Respondent difficulty with probes	18	59
Respondent difficulty with understanding questions	38	39
Following the random start sequence	5	72
Other (SPECIFY):	6	71
<u>Too long, Very repetitive</u>		

52. How frequently do respondents have the DHKS reminder card/answer categories available when you are conducting the interview?

ALWAYS	7
FREQUENTLY	21
SOMETIMES.....	31
RARELY	13
NEVER.....	5

53. When the respondent uses the DHKS card, how well does it work in helping with the flow of the interview and assisting the respondents with understanding the questions?

EXCELLENT	24
GOOD	29
AVERAGE	18
POOR.....	1

54. On average, how would you rate the pace of the DHKS interview. Would you say it is excellent, good, average, or poor...

	<u>EXCELLENT</u>	<u>GOOD</u>	<u>AVERAGE</u>	<u>POOR</u>	<u>N/A</u>
With the reminder card?	20	41	10	1	5
Without the reminder card?.....	4	24	31	16	2

55. What are the characteristics of respondents who are the best candidates for in person DHKS interviews?

Respondents who are hard of hearing (27), Elderly respondents (25), Language difficulties (10).

Reluctant respondents (4), No telephones (6), Uneducated/slow respondents (10)

56. The DHKS is conducted 2 to 3 weeks after the Day 2 Intake or refusal. Does this time period help or impede the...

HELP IMPEDE NEITHER

Response Rate? 29 34 14
Household Rapport? 29 29 19

57. What suggestions do you have for improving the DHKS response rate? _____

- Shorten the time period between the Day 2 Intake and the DHKS. (25) _____

- Allow more DHKS to be done in person. (3) _____

ALL QUESTIONNAIRES

58. Are there places in ANY of the questionnaires that flow in a way that is awkward or difficult for you and/or the respondents?

YES 29
NO 48

QUESTIONNAIRE	DIFFICULTY	INTERVIEWER	RESPONDENT	BOTH
HHQ	Income questions	0	5	3
Intakes	Review	1	0	4
DHKS	Q10 - Q14	0	4	0
DHKS	Q1	0	3	0
DHKS	Too long	0	0	3
QUESTIONNAIRE	DIFFICULTY	INTERVIEWER	RESPONDENT	BOTH

QUALITY CONTROL ISSUES

59. Is the feedback on the quality of your work regular enough?

YES 66
 NO 10
 NO OPINION 1

60. Is the feedback specific enough to identify your errors and detailed enough to help you improve?

YES 64
 NO 11
 NO OPINION 2

61. What are your suggestions for improving the feedback? _____

- Send copies of the corrected intakes to show the mistake. (10)

- It would be helpful to see which Intakes are being referred to. (6)

62. During report calls, your supervisor conducted a series of "pop quizzes." How beneficial were the following exercises:

	VERY HELPFUL	HELPFUL	NOT HELPFUL	NO OPINION
Intake review questions	42	30	3	2
DHKS health questions	30	34	9	4
Sandwich Exercise	46	26	3	2
Household income section	30	32	10	5
Sampling Exercise	41	32	3	1

63. In reviewing your work, Westat and USDA coders have noticed inconsistent editing or no editing of documents. What are the main reasons for incomplete editing or no editing of a document? What are your suggestions for improving interviewer editing? _____

Reasons: Interruptions (7), there are too many documents to be edited (4), editing is time consuming (7), tiring (4), too much to do at one sitting (2).

Suggestions: Take more time to edit (6), and edit more than once (2), small bonuses for good editing. (3)

SURVEY PUBLICITY

Respondent cooperation can be enhanced by survey publicity. Therefore, early in 1994, USDA provided a press release to at least one newspaper in each of the PSUs.

64. Did you see any news articles concerning the study in your local newspaper(s)?

YES 9
NO 68

If yes, what do you recall about the article(s)? - Explained what the study was about; it did not mention Westat, but did refer to USDA. (1)

65. Did any respondents report seeing any news articles concerning the study in their local newspaper(s)?

YES 6
NO 71

If yes, what did they tell you about the article(s)? The interview could only take a few minutes (1). The respondent wondered if the article had something to do with (my) work. (1)

3.K Summary of In-Person Interviewer Debriefing

Attachment 3.K In-Person Interviewer Debriefing

The agenda for the In-Person Debriefing of field staff closely followed the Debriefing Questionnaire. A summary of the in-person discussion follows.

Advance Materials and Contacting Households

Advance letters and brochures were the most positively received and frequently used tools for convincing reluctant sample persons (SPs) and converting refusals. Together, they established the legitimacy of the survey and were key elements in gaining respondent cooperation. Interviewers also agreed that the Spanish versions of the advance materials were welcomed by Spanish-speaking SPs.

The flyers were less frequently presented to SPs but were effective when used.

The factbooks helped the interviewers convert borderline refusals and could also be used to keep other household members occupied during an interview with an SP.

The field staff agreed unanimously that the letter of authorization helped to establish the survey's legitimacy with local authorities, apartment managers, and other community officials.

Interviewers suggested that it would be helpful to have an introductory letter tailored to neighbors, to be used when collecting neighbor information to complete the Screener. Similarly, a letter of introduction would be useful when collecting missing meal data from schools.

Most interviewers agreed that the introductions to the questionnaires provided sufficient information to the respondents.

SPs most commonly asked the following questions about the survey:

- What is USDA going to do with all of the information collected?
- How can I get the survey results?

- Why/how was my household selected?
- Do I have to participate?
- How long will this survey take?

The field staff generally agreed that Hispanics, Puerto Ricans, new U.S. citizens, and persons of mixed race had difficulty classifying their race. Hispanic and Puerto Rican SPs usually classified themselves as Hispanic, and new citizens often classified themselves as “American.”

Most SPs did not object to the income question on the Screener. When they did ask why the information was necessary, the interviewers did not have any difficulty explaining the purpose of the question.

The three most common reasons for completing a Screener with neighbors were that the household refused to participate, the SP was never home, and the SP would not answer the door.

The interviewers discussed the challenges of working in areas with locked buildings. Successful techniques included following a resident into the locked building and contacting the management office.

Interviewers used a variety of methods to manage their workloads. Many preferred to work a segment until they were nearly finished before moving on to the next segment. Some grouped their cases by label days. Others quickly worked the households where, according to the sampling message on the Screener, large numbers of SPs were eligible for selection. Some interviewers chose to organize their workloads based on the distance from their homes.

Household Questionnaire

Interviewers had very few problems identifying the Household Questionnaire respondent, because most Screener respondents were able to identify the person responsible for food purchase and preparation.

Interviewers found that the measuring cups and spoons given as a gift were helpful in gaining the cooperation of the household.

The income questions required considerable explanation. Many SPs wanted to know what the income questions had to do with food. A few SPs were offended by the detailed questions concerning various sources of income. Some interviewers preferred to conduct the Day 1 Intake(s), and thereby gain rapport with the household, before attempting the Household Questionnaire.

Although some SPs had personal reasons for refusing to complete the Household Questionnaire, the most common reason was refusal to participate in the entire survey.

Day 1 Intake

The handcard was rarely necessary as an aid for clarifying the 24-hour recall period. Most SPs had a clear understanding of the reporting period.

SPs had difficulty understanding a few concepts and questions. Some SPs struggled with the difference between the amount of food served and the amount actually consumed. There were some problems with the diet questions. Many SPs had not heard of fish oil supplements.

Interviewers found that SPs responded very positively to the insulated nylon bag. Presenting the bag before the interview was often helpful in gaining the SP's cooperation.

Most interviewers requested that the Intake interview be conducted at the kitchen table or near the kitchen, explaining that it might be necessary to look at food labels. Interviewers were generally successful in obtaining food labels when they asked for them. During the Intake interview, some SPs had difficulty in reporting quantities for potato chips, beverages consumed throughout the day, buffet foods, and some mixed dishes.

Day 2 Intake

The interviewers had many suggestions for improving the rate of interview completion within the 3- to 10-day window. The first suggestion was to return to the household on the third day instead of waiting until later in the window. Another was to use a calendar to help organize the caseload. There was also a suggestion that at the end of the Day 1 Intake the interviewer gather as much information as possible about SP availability. Some interviewers wanted to expand the window to a full 2 weeks, and others wanted to be able to make appointments.

The interviewers reported no major problems in conducting Day 2 Intakes over the telephone. Most SPs did not have any trouble reporting food quantities over the telephone.

Some interviewers were uncomfortable speaking to proxy respondents while the SP was present.

The interviewers encountered several challenges when interviewing children aged 6 to 11 with the help of an adult. Sometimes the interviewers had to help the children to recall what they had consumed. There were occasionally parent-child conflicts about what the child had actually consumed. Some parents wanted to answer the questions for their children, and some were unhappy that the children were asked about alcohol consumption and smoking.

While attempting data retrieval from schools, daycare centers, and other care providers, the interviewers occasionally had difficulty demonstrating the legitimacy of the survey. They encountered fear from some school officials who thought that USDA was monitoring their school food programs. Also, the child and the school (or care provider) sometimes gave conflicting reports about the foods that were served.

The interviewers differed in their opinions about the feasibility of attempting data retrieval over the telephone from the SP's home. Some interviewers believed that this approach worked well because it was less intimidating to the care provider. Others said that this procedure worked well with relatives and babysitters but was less effective with schools and daycare providers.

The interviewers shared many ideas about gaining the cooperation of adults aged 50 and over. They agreed that gaining the support of the wife was crucial to the older male's participation in

the survey. Some interviewers believed that the study literature with the toll-free telephone number helped to convince older SPs to participate. Interviewers often found that they were able to overcome objections to participating if they could determine the SP's reason for refusal.

The travel mugs were received with less enthusiasm than the insulated nylon bags, but most SPs were very positive about the gift.

Food Instruction Booklet (FIB)

The interviewers reported that they had to explain how to use the thickness sticks. There were a few general food categories and food items that the interviewers had difficulty recording: these included mixed dishes, ethnic foods, vegetables cooked with roasts, and fast-food items not included in the FIB.

Diet and Health Knowledge Survey (DHKS) Questionnaire

Many interviewers felt that the DHKS was too long and wordy. They agreed that they had to repeat the DHKS questions and probes frequently. Some SPs asked the interviewer to interpret the questions. Others were frustrated by the questions because they did not do the food shopping or preparation. Some SPs were confused by the terminology in the questionnaire.

The interviewers did not encounter any problems when the SP used the reminder postcard listing the response categories. However, when the postcard was not available for reference, the interviewer had to repeat the answer categories frequently.

The best candidates for in-person DHKS interviews were SPs who were hard of hearing, those who avoided the interview, very talkative SPs, elderly persons, SPs without telephones, those with short attention spans, and SPs who did not speak English fluently.

Many interviewers felt that the 2- to 3-week time gap between the Day 2 Intake and the DHKS interview hindered the rapport between the interviewer and the household. Others said that the hiatus was a good break, especially in households with many SPs.

4.A General Edit Forms for Non-Intake Questionnaires

General Edit of Household Folder, Screener, and Household Questionnaire/NIRF

Interviewer ID: _____

Week ending: _____

Page _____ of _____

Item Description [Check if problem.]	Minilabel	Minilabel	Minilabel	Minilabel	Minilabel	Minilabel	Minilabel
HHF recording attempts incomplete							
Screener Cover incomplete							
Q1 ≠ Enumeration Table							
Enumeration incomplete/incorrect							
Q11 and Q12 (DOB and Age) inconsistent							
Screener R not identified							
Q's 14, 14a, 14b inappropriately skipped							
Q14 Hand Card number missing							
Q14 Wrong Hand Card							
Box 1 incorrect							
Box 3 incorrect							
SP selection incorrect							
Q's 20 & 21 inappropriately skipped							
Box 6 incorrect							
Box 8 incorrect							
Sp selection incorrect							
HHQ Cover incomplete							
Q's 10-16 person list incorrect							
Q's 10-16 names/line letter incorrect							
Q47 Hand Card number missing							
Q47 Wrong Hand Card							
NIRF inappropriately skipped							
Total Errors							

Comments: _____

General Edit of DHKS Folder, DHKS Questionnaire/NIRF

Interviewer ID: _____

Week ending: _____

Page _____ of _____

Item Description [Check if problem.]	Minilabel	Minilabel	Minilabel	Minilabel	Minilabel	Minilabel	Minilabel
DHKSF recording of attempts incomplete							
DHKS Cover incomplete							
Random start skipped							
NIRF inappropriately skipped							
Total Errors							

Comments: _____

**4.B Individual Intake Reviewer/Coder Training
Agenda**

**CONTINUING SURVEY OF FOOD INTAKES BY INDIVIDUALS 1994-1996
PILOT SURVEY**

INDIVIDUAL INTAKE REVIEWER/CODER TRAINING AGENDA

DAY	TIME	SESSION NUMBER AND TOPIC	MATERIALS FOR SESSION
1 Tuesday 1/11/94	9:00 - 9:30	#1 Introduction/Overview of the Project (HNIS)	Chapter 1, Food Intake Reviewer/Coder Manual
	9:30 - 10:00	#2 Overview of Reviewing/Coding Tasks This session will cover the data flow and tasks involved in processing the CSFII questionnaires.	Chapter 2, Food Intake Reviewer/Coder Manual
	10:00 - 10:30	#3 Introduction to the Review Process This session will introduce the trainees to the review process. Discussion will include the purpose of the review and portions of Supervisor Training that served as background for performing the review. Trainees will be encouraged to comment on review-related portions of the Supervisor Training.	Chapter 3, Food Intake Reviewer/Coder Manual
	10:30 - 10:45	BREAK	
	10:45 - 12:00	#4 Reviewing the Interviewers' Individual Intakes This session will introduce the Review in hard copy form. Instructions for using the form as well as definition of the various edit errors will be discussed. An introduction and detailed explanation of the Individual Intake form will be followed by a review of the Food Instruction Booklet home study.	Chapter 3, Food Intake Reviewer/Coder Manual, Intake Form, Food Instruction Booklet
	12:00 - 1:00	LUNCH	
	1:00 - 2:00	#5 Interactive Hard Copy Review - Review Exercise #1 This exercise will familiarize the trainees with the review process. The instructor will demonstrate how to conduct the review and guide the trainees in completing the review.	Intake for Exercise #1 Hardcopy Review Form
	2:00 - 3:30	#6 Introduction to the Computer	
	3:30 - 3:45	BREAK	
	3:45 - 5:00	#7 Interactive Demonstration of Entering the Review - Review Exercise #2 In this session the instructor will demonstrate and guide trainees in entering the hard copy review from previous session into the computer.	Intake for Exercise #1 Hardcopy Review Form from previous session

CONTINUING SURVEY OF FOOD INTAKES BY INDIVIDUALS 1994-1996 ·
PILOT SURVEY
INDIVIDUAL INTAKE REVIEWER/CODER TRAINING AGENDA

DAY	TIME	SESSION NUMBER AND TOPIC	MATERIALS FOR SESSION
2 Wednesday 1/12/94	9:00 - 10:00	#8 Independent Automated Review - Review Exercise #3 Trainees will independently enter a review of an intake into the computer. They will be given a written set of step by step instructions to get them started.	Intake with errors. Instructions to start, Chapter 3, Food Intake Reviewer/Coder Manual
	10:00 - 10:15	BREAK	
	10:15 - 12:15	#9 Independent Automated Review - Review Exercise #3 (continued)	Same as above
	12:15 - 1:15	LUNCH	
	1:15 - 3:00	#10 Interactive Demonstration of Coding on Survey Net - Survey Net Exercise #1 In this session, the instructor will demonstrate and guide trainees in logging on, entering the filename, coversheet information, eating occasion, time, food, food quantity, source, and where the food was eaten. Trainees will experiment with food searching and entering food amounts.	Intake, Chapter 5, Food Intake Reviewer/Coder Manual
	3:00 - 3:15	BREAK	
	3:15 - 5:00	#11 Independent Coding on Survey Net - Survey Net Exercise #2 (Beginning Level) Trainees will independently enter an Intake into Survey Net. The exercise will include simple logging onto Survey Net, entering cover sheet information followed by entering foods and food amounts that can be easily found and entered in Survey Net. Floaters will be available to assist trainees in their independent entries during this session.	Intake, Chapter 5, Food Intake Reviewer/Coder Manual

CONTINUING SURVEY OF FOOD INTAKES BY INDIVIDUALS 1994-1996
PILOT SURVEY
INDIVIDUAL INTAKE REVIEWER/CODER TRAINING AGENDA

DAY	TIME	SESSION NUMBER AND TOPIC	MATERIALS FOR SESSION
3 Thursday 1/13/94	9:00 - 10:30	#12 USDA Food Coding System This session will be lecture format with slides and overheads to highlight information about the USDA Food Coding System. Included will be discussion on information in the code--the description, the include statement, the NS and NFS designations, and units and quantity information. Also included will be special food groups and use of recipe information in coding. The lecture will be followed by hard copy exercises on selecting codes, entering quantities, and making simple recipe modifications.	Chapter 4, Food Intake Reviewer/Coder Manual Hard copy exercises
	10:30 - 10:45	BREAK	
	10:45 - 12:00	#13 USDA Food Coding System -- continued	Chapter 4, Food Intake Reviewer/Coder Manual
	12:00 - 1:00	LUNCH	
	1:00 - 3:00	#14 Interactive Demonstration of Survey Net Coding - Survey Net Exercise #3 In this session the instructor will demonstrate and guide trainees in entering foods that are difficult to find in Survey Net, foods that are difficult to code, complex food amounts, and simple recipe modifications.	Hard copy exercises
	3:00 - 5:00	#15 Independent Coding on Survey Net - Survey Net Exercise #4 (Intermediate Level) Trainees will independently enter an Intake containing difficult to find foods, difficult to code foods, foods with complex amounts, and foods that require recipe modification. Floaters will be available to assist them in their Survey Net entries.	Intake Chapter 5, Food Intake Reviewer/Coder Manual

CONTINUING SURVEY OF FOOD INTAKES BY INDIVIDUALS 1994-1996
PILOT SURVEY
INDIVIDUAL INTAKE REVIEWER/CODER TRAINING AGENDA

DAY	TIME	SESSION NUMBER AND TOPIC	MATERIALS FOR SESSION
4 Friday 1/14/94	9:00 - 9:30	#16 Adjudication of Survey Net Exercise #1 (Training staff will adjudicate Survey Net Exercises as they are completed by trainees. Adjudication involves the examination of a computer comparison of trainee entries to instructor entries.) This session will include highlights of the adjudication done on the trainees' Survey Net Exercise #1. The instructor will pass out adjudication reports to the trainees from their first exercise in Survey Net. Discussion will include reading the adjudication report.	Adjudication Report of Exercise #1
	9:30 - 10:30	#17 Interactive Demonstration of Editing Coded Intakes - Survey Net Exercise #5 This session will instruct the trainees in correcting a previously entered Intake. Trainees will be guided in making corrections using the edit mode.	
	10:30 - 10:45	BREAK	
	10:45 - 12:00	#18 Independent Edit of Coded Intake - Edit Your Own Survey Net Exercise #1 Using the Adjudication Report	Adjudication Report of Exercise #1
	12:00 - 1:00	LUNCH	
	1:00 - 3:00	#19 Interactive Demonstration of Additional Survey Net Features - Survey Net Exercise #6. In this session the instructor will demonstrate and guide trainees in using the Copy feature, modifying recipes, and entering unknown foods and amounts.	Chapter 5, Food Intake Reviewer/Coder Manual
	3:00 - 3:15	BREAK	
	3:15 - 4:00	#19 Interactive Demonstration of Addition Survey Net Features (continued)	
	4:00 - 5:00	#20 Independent Entry of Survey Net Tutorial	Survey Net Tutorial

CONTINUING SURVEY OF FOOD INTAKES BY INDIVIDUALS 1994-1996
PILOT SURVEY
INDIVIDUAL INTAKE REVIEWER/CODER TRAINING AGENDA

DAY	TIME	SESSION NUMBER AND TOPIC	MATERIALS FOR SESSION
5 Monday 1/17/94	9:30 - 10:30	#20 Independent Entry of Survey Net Tutorial (continued)	Survey Net Tutorial
	10:30 - 10:45	BREAK	
	10:45 - 12:00	#20 Independent Entry of Survey Net Tutorial (continued)	Survey Net Tutorial
	12:00 - 1:00	LUNCH	
	1:00 - 3:00	#21 Guidelines for Food Coding Trainees will complete a hard copy exercise to practice using the guidelines. This session will include instruction on hard copy guidelines used in food coding.	Chapter 4, Food Intake Reviewer/Coder Manual Hard copy Exercise
	3:00 - 5:00	#22 Interactive Demonstration of Using Coding Guidelines in Survey Net - Survey Net Exercise #7 In this session, the instructor will demonstrate and guide the trainees in using the hardcopy guidelines in Survey Net Coding.	Intake Chapter 4, Food Intake Reviewer/Coder Manual

CONTINUING SURVEY OF FOOD INTAKES BY INDIVIDUALS 1994-1996
PILOT SURVEY
INDIVIDUAL INTAKE REVIEWER/CODER TRAINING AGENDA

DAY	TIME	SESSION NUMBER AND TOPIC	MATERIALS FOR SESSION
6 Tuesday 1/18/94	9:00 - 12:00	#23 Independent Coding on Survey Net - Survey Net Exercise #8 (Advanced Level) Trainees will independently enter an Intake into Survey Net. The exercise will include everything covered in the training on Survey Net from logging in through using the guidelines.	Intake Chapter 4, Food Intake Reviewer/Coder Manual
	12:00 - 1:00	LUNCH	
	1:00 - 2:00	#24 Coding of Non-food Intake Questions on the Individual Intake Questions. This session will include a discussion of general coding instructions on recording conventions, general coding rules, no data codes, range responses, and coding procedures.	General Reviewer/Coder Manual COED Codebook Day 1, Day 2 Intakes
	2:00 - 4:00	#25 Interactive Coding of Non-food Intake Questions - Coding Exercise #1 (Basic). Trainer will lead trainees in coding non-food questions on a sample Intake Questionnaire which includes beginner level coding concepts.	General Reviewer/Coder Manual COED Codebook Day 1, Day 2 Intakes
	4:00 - 5:00	#26 Independent Coding of Non-food Intake Questions - Coding Exercise #2 (Intermediate). Trainees will independently code non-food questions of a sample Intake Questionnaire, which includes intermediate level coding concepts.	General Reviewer/Coder Manual COED Codebook Day 1, Day 2 Intakes

CONTINUING SURVEY OF FOOD INTAKES BY INDIVIDUALS 1994-1996
PILOT SURVEY
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DAY	TIME	SESSION NUMBER AND TOPIC	MATERIALS FOR SESSION
7 Wednesday 1/19/94	9:00 - 10:00	#27 Review of Coding Exercise #2 In this session, the instructor will review the exercise with the use of overheads.	General Reviewer/Coder Manual COED Codebook Day 1, Day 2 Intakes
	10:00 - 10:15	BREAK	
	10:15 - 11:15	#28 Independent Coding of Non-food Intake Questions - Coding Exercise #3 (Advanced) Trainees will independently code non-food questions of a sample Intake Questionnaire, which includes advanced level coding concepts.	General Reviewer/Coder Manual COED Codebook Day 1, Day 2 Intakes
	11:15 - 12:15	#29 Review of Coding Exercise #3 In this session, the instructor will review the exercise with the use of overheads.	General Reviewer/Coder Manual COED Codebook Day 1, Day 2 Intakes
	12:15 - 1:15	LUNCH	
8, 9, 10 Thurs, Fri, Mon 1/20, 1/21, 1/24/94	1:15 - 3:15	#30 Review of Training	
	3:15 - 5:00	Test Sets	
	All Day	Test Sets	

4.C Non-Intake Coder Training Agenda

WHAT WE EAT IN AMERICA: 1994-1996 - MAIN SURVEY

CODER TRAINING AGENDA

SCREENER, HOUSEHOLD QUESTIONNAIRE, HOUSEHOLD FOLDER,
AND NON-INTERVIEW REPORT FORM

Day 1 Thursday, February 10, 1994

Morning

9:00 - 10:00	Introduction to Screener and Household Questionnaires
10:00 - 10:15	Flow of Non-Intake Documents
10:15 - 10:30	BREAK
10:30 - 11:00	Manual
11:00 - 12:00	Interactive Screener Exercise #1
12:00 - 1:00	LUNCH

Afternoon

1:00 - 2:00	Interactive Screener Exercise #1 -- continued
2:00 - 3:00	Independent Screener Exercise #2 and Review
3:00 - 3:30	Independent Screener Exercise #3 and Review
3:30 - 3:45	BREAK
3:45 - 4:00	Independent Screener Exercise #4 and Review
4:00 - 5:00	Interactive Household Questionnaire Exercise #1

Day 2 Friday, February 11, 1994

Morning

9:00 - 10:30	Independent Household Questionnaire Exercise #2 and Review
10:30 - 10:45	BREAK
10:45 - 11:15	Introduction to Household Folder and Non-Interview Report Form
11:15 - 12:00	Interactive Household Folder Exercise #1
12:00 - 1:00	LUNCH

Afternoon

1:00 - 2:00	Independent Household Folder Exercise #2 and Review
2:00 - 2:30	Independent Household Folder Exercise #3 and Review
2:30 - 3:00	Independent Household Folder Exercise #4 and Review
3:00 - 3:15	BREAK
3:15 - 3:45	Interactive Non-Interview Report Form Exercise #1
3:45 - 4:15	Independent Non-Interview Report Form Exercise #2 and Review

4.D Missing Detail Report

Interviewers with Missing Detail(s)

11:10 Friday, April 28, 1995

Year 2 Data

OBS	PSU	Int ID	Percent of foods with Missing Detail(s)	Total Number of Foods	Number of Foods with Missing Detail(s)
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
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49					
50					

4.E General Interviewer Error Report

Date Generated: February 13, 1994
Quarter 1 / Year 1 Report

REGION=

	TOTAL	PER	
	ERROR	TYPE	
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9
10	10	10	10
11	11	11	11
12	12	12	12
13	13	13	13
14	14	14	14
15	15	15	15
16	16	16	16
17	17	17	17
18	18	18	18
19	19	19	19
20	20	20	20
21	21	21	21
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92	92	92	92
93	93	93	93
94	94	94	94
95	95	95	95
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97	97	97	97
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99	99	99	99
100	100	100	100

4.F Survey Net Adjudication Report

Survey Net Discrepancy Report
 Coder vs Verifier
 COVER SHEET

Date: 5/03/95 Page: 1
 CODER ID : _____ ADJUDICATOR:
 VERIFIER ID: _____ DATE: __/__/__

ID	SP	Intake Date	Date Coded	Date Verified	Variable Name	Coder Entry (44 chars display only)	Verifier Entry (44 chars display only)	Result
								1 2 3
								1 2 3
								1 2 3

Summary

File #Input #Processed
 Coded
 Selected
 Verified

Verifier File: _____
 Coder File: _____
 Number of Errors: _____

4.G Survey Net Error Rate Calculation

Attachment 4.G

Survey Net Error Rate Calculation

The two error rates calculated for Survey Net coders are the cover sheet error rate and the food data error rate. The calculations used for the error rates are shown below:

1. **Cover sheet error rate** = $100 \times (\text{number of cover sheet fields with errors} \div \text{total number of cover sheet fields})$

Total number of cover sheet fields = 17

2. **Food data error rate** = $100 \times (\text{number of food fields with errors} \div \text{number of food fields entered})$

Number of food fields entered = the number of foods entered X 17

Cover sheet fields

1. Household ID
2. Subject ID
3. Date of Intake
4. Date of interview
5. Day of week of interview
6. First name of respondent
7. Date of birth
8. Age
9. Sex
10. Interviewer ID
11. Time interview started -- day, month, year
12. AM/PM
13. Time interview ended -- day, month, year
14. AM/PM
15. Sample year
16. Day 1 or 2
17. Coder ID

Food fields

1. Time
2. AM/PM
3. What called
4. Line number
5. Combination type
Combination number
6. Food code

7. Modified food
Modified food description
8. Unknown food category
Unknown food description
9. How many
10. Measure
11. Unknown amount
Unknown amount description
12. What called other
Where obtained other
13. Where obtained
14. Food eaten at home
15. Food brought into the home
16. Notepad
Request review
17. Salt

